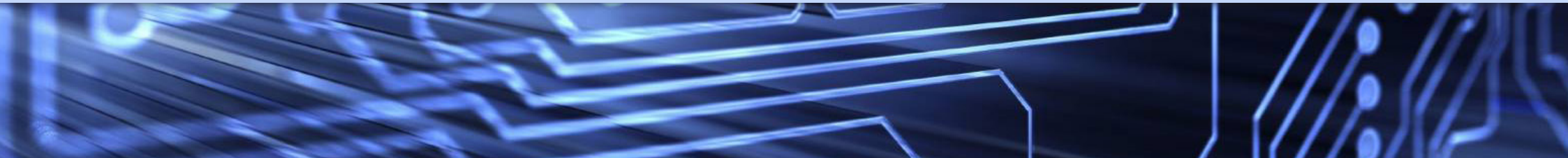


PRODUCT CATALOG 2022



*Worldwide Leader in Legacy Memory*



**Alliance Memory** is pleased to highlight our new product offerings in DRAM, SRAM and FLASH eMMC in this new 2022 edition of our Product Selection Guide. We continue to be the premier legacy memory supplier offering high quality products, minimal die shrinks and long term support.

[www.alliancememory.com](http://www.alliancememory.com)



# Synchronous DRAM 3.3V ( x4, x8, x16 and x32 )



DENSITY	ORG	VCC	PACKAGE	CLOCK FREQUENCY (MHz)	TEMPERATURE	ALLIANCE
16Mb	1M x 16	3.3V	50pin TSOP II	143/166 MHz	Commercial, Industrial	AS4C1M16S-6/7 TxN
64Mb	4M x 16	3.3V	54pin TSOP II	143/166/200 MHz	Commercial, Industrial, Automotive	AS4C4M16SA-5/6/7 TxN
64Mb	4M x 16	3.3V	54pin TSOP II	166 MHz	Industrial	AS4C4M16SB-6TIN
64Mb	4M x 16	3.3V	54-ball FBGA / 60-ball FBGA	143/166 MHz	Commercial, Industrial, Automotive	AS4C4M16SA-6/7 BxN, B2xN
64Mb	2M x 32	3.3V	90-ball TFBGA	143/166 MHz	Commercial, Industrial	AS4C2M32S-6/7 BxN
64Mb	2M x 32	3.3V	86pin TSOP II	143/166 MHz	Commercial, Industrial	AS4C2M32SA-6/7 TxN
128Mb	8M x 16	3.3V	54pin TSOP II/54-ball FBGA	143/166 MHz	Commercial, Industrial, Automotive	AS4C8M16SA-6/7 TxN/BxN
128Mb	8M x 16	3.3V	54pin TSOP II	166 MHz	Industrial	AS4C8M16SB-6TIN
128Mb	4M x 32	3.3V	90-ball TFBGA	143/166 MHz	Commercial, Industrial	AS4C4M32S-6/7 BxN
128Mb	4M x 32	3.3V	86pin TSOP II	143/166 MHz	Commercial, Industrial	AS4C4M32SA-6/7 TxN
256Mb	16M x 16	3.3V	54pin TSOP II/54-ball FBGA	143/166 MHz	Commercial, Industrial, Automotive	AS4C16M16SA/B-6/7 TxN/BxN
256Mb	8M x 32	3.3V	86pin TSOP II	143/166 MHz	Commercial, Industrial	AS4C8M32S-6/7 TxN
256Mb	8M x 32	3.3V	90-ball TFBGA	143/166 MHz	Commercial, Industrial	AS4C8M32SA-6/7 BxN
256Mb	32M x 8	3.3V	54pin TSOP II	143/166 MHz	Commercial, Industrial	AS4C32M8SA-6/7 TxN
256Mb	64M x 4	3.3V	54pin TSOP II	143/166 MHz	Commercial, Industrial	AS4C64M4SA-6/7 TxN
512Mb	32M x 16	3.3V	54-ball FBGA	143 MHz	Industrial	AS4C32M16SB-7BIN
512Mb	32M x 16	3.3V	54pin TSOP II	143/166MHz	Commercial, Industrial	AS4C32M16SB-6/7 TxN
512Mb	32M x 16	3.3V	54pin TSOP II	143 MHz	Industrial (Single Die)	AS4C32M16SC-7TIN
512Mb	16M x 32	3.3V	86pin TSOP II	143 MHz	Industrial (Single Die)	AS4C16M32SC-7TIN
512Mb	64M x 8	3.3V	54pin TSOP II	143 MHz	Industrial (Single Die)	AS4C64M8SC-7TIN
512Mb	64M x 8	3.3V	54pin TSOP II	133 MHz	Commercial, Industrial	AS4C64M8SD-7TCN

\* x=Temperature Range C=0 ~ +70 °C I=-40 ~ +85 °C A=-40 ~ +105

# Synchronous DRAM 3.3V Cross Reference



DENSITY	ORG	ALLIANCE	SAMSUNG (EOL)	MICRON	SK HYNIX (EOL)	ISSI	WINBOND	NANYA (EOL)	ELITE (ESMT)	ELPIDA (EOL)
16Mb	1M x 16	<b>AS4C1M16S-6/7TxN</b>	K4S161622E	MT48LC1M16A1	HY57V161610	IS42S16100	W9816G6TH	NT56V1616AOT	M12L16161A-xTG2Q	EDS1616AGTA
64Mb	4M x 16	<b>AS4C4M16SA-6/7TxN</b>	K4S641632N-UCxx	MT48LC4M16A2P	HY57V641620	IS42S16400	W9864G6JH	NT56V6620C0T-xxB	M12L64164A-xTG2U	uPD4564163G5-Axx
64Mb	4M x 16	<b>AS4C4M16SB-6TIN</b>	K4S641632N-UCxx	MT48LC4M16A2P	HY57V641620	IS42S16400	W9864G6JH	NT56V6620C0T-xxB	M12L64164A-xTG2U	uPD4564163G5-Axx
64Mb	4M x 16	<b>AS4C4M16SA-6/7BxN</b>		MT48LCM16A2B4(F4)	HY5V66D	IS42S16400	W9864G6JT		M12L64154A-xBG2C	
64Mb	4M x 16	<b>AS4C4M16SA-7B2CN</b>				IS42S16400	W9864G6JB-7			
64Mb	2M x 32	<b>AS4C2M32S-6/7BxN</b>		MT48LC2M32B2B5-x	HY5V62	IS42S32200	W9864G2IB-x			EDS6432AFBH
64Mb	2M x 32	<b>AS4C2M32SA-6/7TxN</b>	K4S643232H-Ucxx	MT48LC2M32B2P-x (EOL)	HY57V643220	IS42S32200	W9864G2J(G,I)H-x		M12L64322A-xTG2U	EDS6432AFTA
128Mb	8M x 16	<b>AS4C8M16SA-6/7TxN</b>	K4S281632K-UCxx	MT48LC8M16A2P	HY57V281620	IS42S16800	W9812G6K(G,I)H	NT5SV8M16AT-xxB	M12L128168A-xTG2N	uPD45128163G5-Axx
128Mb	8M x 16	<b>AS4C8M16SA-6/7BxN</b>	K4S281632D-RL75	MT48LC8M16A2B4(F4)	HY5V26	IS42S16800	W9812G6JB		M12L128168A-xBG2N	
128Mb	8M x 16	<b>AS4C8M16SB-6TIN</b>	K4S281632K-UCxx	MT48LC8M16A2P	HY57V281620	IS42S16800	W9812G6K(G,I)H	NT5SV8M16AT-xxB	M12L128168A-xTG2N	uPD45128163G5-Axx
128Mb	4M x 32	<b>AS4C4M32S-6/7BxN</b>		MT48LC4M32B2B5-x	HY5V22	IS42S32400	W9812G21(G)B-x		M12L128324-xBG2E	EDS1232AHHB
128Mb	4M x 32	<b>AS4C4M32SA-6/7TxN</b>		MT48LC4M32B2P-x (EOL)	HY57V283220T	IS42S32400	W9812G2GH			EDS1232AHTA
256Mb	16M x 16	<b>AS4C16M16SA/B-6/7TxN</b>	K4S561632N-UCxx	MT48LC16M16A2P	H57V2562GTR	IS42S16160	W9825G6K(D,E,J)H	NT5SV16M16AT-xxB	M12L2561616A-xTG2A	EDS2516AP(AF,AC)TA-xx
256Mb	16M x 16	<b>AS4C16M16SA-6/7BxN</b>	K4S561632D-RL75	MT48LC16M16A2B4	HY5V56	IS42S16160	W9825G6JB		M12L2561616A-xBG2A	EDS2516EE(JE)BH
256Mb	8M x 32	<b>AS4C8M32S-6/7TxN</b>		MT48LC8M32B2B5-x (EOL)	HY5V52	IS42S32800	W9825G2J(D)B-x			EDS2532EEBH
256Mb	8M x 32	<b>AS4C8M32SA-6/7BxN</b>		MT48LC8M32B2B5-x	HY5V52	IS42S32800	W9825G2J(D)B-x			EDS2532EEBH
256Mb	32M X 8	<b>AS4C32M8SA-6/7TxN</b>		MT48LC32M8A2P		IS42S83200J				
256Mb	64M x 4	<b>AS4C64M4SA-6/7TxN</b>		MT48LC64M4A2P (EOL)		IS42S32800				
512Mb	32M x 16	<b>AS4C32M16SB-7BIN</b>				IS42S16320			M12L5121632A	
512Mb	32M x 16	<b>AS4C32M16SB-6/7TxN</b>	K4S511632M-TC75	MT48LC32M16A2 (EOL)		IS42S16320			M12L5121632A	EDS5116ABTA
512Mb	32M x 16	<b>AS4C32M16SC-7TIN</b>	K4S511632M-TC75	MT48LC32M16A2 (EOL)		IS42S16320				EDS5116ABTA
512Mb	16M x 32	<b>AS4C16M32SC-7TIN</b>				IS42S32160				
512Mb	64M x 8	<b>AS4C64M8SC-7TIN</b>		MT48LC64M8A2P-75:C (EOL)		IS42S86400				
512Mb	64M x 8	<b>AS4C64M8SD-7TCN</b>		MT48LC64M8A2P-75:C (EOL)		IS42S86400				

# DDR1 2.5V DRAM



DENSITY	ORG	VCC	PACKAGE	CLOCK FREQUENCY (MHz)	DATA RATE	TEMPERATURE OPTIONS	ALLIANCE
64Mb	4M x 16	2.5V	66pin TSOP II	200 MHz	400 Mbps/pin	Commercial, Industrial, Automotive	AS4C4M16D1A-5TxN
64Mb	2M x 32	2.5V	144-ball FBGA	200 MHz	400 Mbps/pin	Commercial, Industrial	AS4C2M32D1A-5BxN
128Mb	8M x 16	2.5V	66pin TSOP II	200 MHz	400 Mbps/pin	Commercial, Industrial	AS4C8M16D1A-5TxN
128Mb	8M x 16	2.5V	60-ball FBGA	200 MHz	400 Mbps/pin	Commercial, Industrial	AS4C8M16D1-5BxN
128Mb	4M x 32	2.5V	144-ball FBGA	200 MHz	400 Mbps/pin	Commercial, Industrial	AS4C4M32D1A-5BxN
256Mb	16M x 16	2.5V	66pin TSOP II	200 MHz	400 Mbps/pin	Commercial, Industrial	AS4C16M16D1A-5TxN
256Mb	16M x 16	2.5V	60-ball FBGA	200 MHz	400 Mbps/pin	Commercial, Industrial, Automotive	AS4C16M16D1-5BxN
512Mb	32M x 16	2.5V	66pin TSOP II	200 MHz	400 Mbps/pin	Commercial, Industrial, Automotive	AS4C32M16D1A-5TxN
512Mb	32M x 16	2.5V	60-ball FBGA	200 MHz	400 Mbps/pin	Commercial, Industrial, Automotive	AS4C32M16D1-5BxN
512Mb	64M x 8	2.5V	66pin TSOP II, 60-ball FBGA	200 MHz	400 Mbps/pin	Commercial, Industrial	AS4C64M8D1-5TxN/5BxN
1Gb	64M x 16	2.5V	66pin TSOP II, 60-ball FBGA	166 MHz	333 Mbps/pin	Commercial, Industrial	AS4C64M16D1-6TxN AS4C64M16D1A-6TxN/6BxN

\* x=Temperature Range C=0 ~ +70 °C I=-40 ~ +85 °C A=-40 ~ +105 °C

# DDR1 2.5V DRAM Cross Reference

DENSITY	ALLIANCE	SAMSUNG (EOL)	MICRON	ISSI	HYNIX - ALL EOL	WINBOND	NANYA	ELITE (ESMT)	ELPIDA
64Mb	AS4C4M16D1A-5TxN	K4H641638N	MT46V4M16TG (EOL)	IS43R16400B-5TL		W9464G6K(I,J)H		M13S64164A-5TG2Y	(EOL)
64Mb	AS4C2M32D1A-5BxN								
128Mb	AS4C8M16D1-5BxN	K4H281638D		IS43R16800E-5BL		W9412G6JB		M13S128168A-5BG2N	EDD1216A
128Mb	AS4C8M16D1A-5TxN	K4H281638D	MT46V8M16 (EOL)	IS43R16800E-5TL	HY5DU1281622	W9412G6K(I,J)H		M13S128168A-5TG2N	EDD1216A
128Mb	AS4C4M32D1A-5BxN		MT46V4M32FK (EOL)	IS43R32400E-5BL		W9412GIB		M13S128324A-5BG2M	EDD1232A
256Mb	AS4C32M8D1-5TxN	K4H560838N	MT46V32M8P (EOL)	IS43R83200	HY5DU56822		NT5DS32M8ES		EDD2508A
256Mb	AS4C16M16D1-5BxN	K4H561638D	MT46V16M16CY-5B	IS43R16160	HY5DU561622	W9425G6JB		M13S2561616A-xBG2A	
256Mb	AS4C16M16D1A-5TxN	KH561638D	MT46V16M16P	IS43R16160	HY5DU561622	W945G6K(D,E,J)H		M13S2561616A-xTG2A	EDD2516A
512Mb	AS4C32M16D1-5BxN	K4H511638J	MT46V32M16CY	IS43R16320	HY5DU121622				EDD5116
512Mb	AS4C32M16D1A-5TxN	K4H511638J	MT46V32M16P	IS43R16320	HY5DU121622		NT5DS32M16ES	M13S5121632A-5TG2S	EDD5116A
512Mb	AS4C64M8D1-5TxN	K4H510838J	MT46V64M8P	IS43R86400	HY5DU12822		NT5DS64M8ES		EDD5108A
512Mb	AS4C64M8D1-5BxN	K4H510838J	MT46V64M8CY(BN)	IS43R86400	HY5DU12822				
1Gb	AS4C64M16D1-6TxN		MT46V64M16P (EOL)						
1Gb	AS4C64M16D1A-6TxN		MT46V64M16P (EOL)						

# DDR2 1.8V DRAM



DENSITY	ORG	VCC	PACKAGE	CLOCK FREQUENCY (MHz)	DATA RATE	TEMPERATURE OPTIONS	ALLIANCE
256Mb	16M x 16	1.8V	84-ball FBGA	400 MHz	800 Mbps/pin	Commercial, Industrial	AS4C16M16D2-25BxN
512Mb	32M x 16	1.8V	84-ball FBGA	400 MHz	800 Mbps/pin	Commercial, Industrial, Automotive	AS4C32M16D2A/C-25BxN
512Mb	64M x 8	1.8V	60-ball FBGA	400 MHz	800 Mbps/pin	Commercial, Industrial, Automotive	AS4C64M8D2-25BxN
1Gb	64M x 16	1.8V	84-ball FBGA	400 MHz	800 Mbps/pin	Commercial, Industrial, Automotive	AS4C64M16D2A-25BxN
1Gb	64M x 16	1.8V	84-ball FBGA	400 MHz	800 Mbps/pin	Commercial	AS4C64M16D2B-25BCN
1Gb	128M x 8	1.8V	60-ball FBGA	400 MHz	800 Mbps/pin	Commercial, Industrial	AS4C128M8D2A-25BxN
2Gb	128M x 16	1.8V	84-ball FBGA	400 MHz	800 Mbps/pin	Commercial, Industrial	AS4C128M16D2-25BxN
2Gb	128M x 16	1.8V	84-ball FBGA	400 MHz	800 Mbps/pin	Commercial, Industrial, Automotive	AS4C128M16D2A-25BxN
2Gb	256M x 8	1.8V	60-ball FBGA	400 MHz	800 Mbps/pin	Commercial	AS4C256M8D2A-25BCN AS4C256M8D2A-25BCN

C=0 ~ +70 °C I=-40 ~ +95 °C A=-40 ~ +105 °C

\* X=TEMPERATURE RANGE

## DDR2 1.8V DRAM Cross Reference

DENSITY	ALLIANCE	SAMSUNG (EOL)	MICRON	ISSI	WINBOND	NANYA	ELITE (ESMT)	HYNIX (EOL)
256Mb	AS4C16M16D2-25BxN	K4T56163Q	MT47H16M16BG	IS43DR16160	W9725G6K(J)B	NT5TU16M16BG	M14D2561616A-2.5BG	HY5PS561621
512Mb	AS4C32M16D2A/C-25BxN	K4T51163Q	MT47H32M16HR(NF)-25E	IS43DR16320	W9751G6K(J)B	NT5TU32M16GG	M14D5121632A-2.5BG	HY5PS121621
512Mb	AS4C64M8D2-25BxN	K4T51083Q	MT47H64M8CF(SH)-25E	IS43DR86400	W9751G8K(J)B	NT5TU64M8EE		H5PS5182KFR
1Gb	AS4C64M16D2A-25BxN	K4T1G164Q	MT47H64M16HR(NF)-25E	IS43DR16640	W971GG6JB	NT5TU64M16HG	M14D1G1664A-2.5BG	H5PS1G63
1Gb	AS4C64M16D2B-25BCN	K4T1G164Q	MT47H64M16HR(NF)-25E	IS43DR16640	W971GG6JB	NT5TU64M16HG	M14D1G1664A-2.5BG	H5PS1G63
1Gb	AS4C128M8D2A-25BxN	K4T1G084Q	MT47H128M8SH-25E	IS43DR81280	W971GG8JB	NT5TU128M8HE	M14D1G8128A	H5PS1G83
2Gb	AS4C128M16D2-25BxN		MT47H128M16RT-25E	IS43DR16128	W972GG6JB			
2Gb	AS4C128M16D2A-25BxN		MT47H128M16RT-25E	IS43DR16128	W972GG6JB			
2Gb	AS4C256M8D2A-25BxN AS4C256M8D2-25BxN		MT47H256M8EB-25E	IS43DR82560	W972GG8JB			

# DDR3 1.5V SDRAM



DENSITY	ORG	VCC	PACKAGE	CLOCK FREQUENCY	DATA RATE	TEMPERATURE OPTIONS	ALLIANCE
512Mb	32M x 16	1.5V	96-ball FBGA	800 MHz	1600 Mbps/pin	Commercial, Industrial	AS4C32M16D3-12BxN
512Mb	64M x 8	1.5V	78-ball FBGA	800 MHz	1600 Mbps/pin	Commercial, Industrial	AS4C64M8D3-12BxN
1Gb	64M x 16	1.5V	96-ball FBGA	800 MHz	1600 Mbps/pin	Commercial, Industrial, Automotive	AS4C64M16D3B-12BxN
1Gb	128M x 8	1.5V	78-ball FBGA	800 MHz	1600 Mbps/pin	Commercial, Industrial, Automotive	AS4C128M8D3B-12BxN
2Gb	128M x 16	1.5V	96-ball FBGA	1066 MHz	2133 Mbps/pin	Commercial	AS4C128M16D3C-93BCN
4Gb	256M x 16	1.5V	96-ball FBGA	800/933/1066 MHz	1600 Mbps/pin 1866 Mbps/pin 2133 Mbps/pin	Commercial, Industrial	AS4C256M16D3C-xxBxN

\* x=Temperature Range

C=0 ~ +95 °C (Extended) I=-40 ~ +95 °C A=-40 ~ +105 °C

# DDR3L 1.35V SDRAM

DENSITY	ORG	VCC	PACKAGE	CLOCK FREQUENCY	DATA RATE	TEMPERATURE OPTIONS	ALLIANCE
512Mb	32M x 16	1.35V	96-ball FBGA	800 MHz	1600 Mbps/pin	Commercial, Industrial	AS4C32M16D3L-12BxN
512Mb	64M x 8	1.35V	78-ball FBGA	800 MHz	1600 Mbps/pin	Commercial, Industrial	AS4C64M8D3L-12BxN
1Gb	64M x 16	1.35V	96-ball FBGA	800 MHz	1600 Mbps/pin	Commercial, Industrial, Automotive	AS4C64M16D3LB-12BxN AS4C64M16D3LC-12BxN
1Gb	128M x 8	1.35V	78-ball FBGA	800 MHz	1600 Mbps/pin	Commercial, Industrial, Automotive	AS4C128M8D3LB-12BxN AS4C128M8D3LC-12BxN
2Gb	128M X 16	1.35V	96-ball FBGA	800 MHz	1600 Mbps/pin	Commercial, Industrial, Automotive	AS4C128M16D3LC-12BxN
2Gb	256M X 8	1.35V	78-ball FBGA	800 MHz	1600 Mbps/pin	Commercial, Industrial, Automotive	AS4C256M8D3LC-12BxN
4Gb	256M x 16	1.35V	96-ball FBGA	800 /933MHz	1600 Mbps/pin 1833 Mbps/pin	Commercial, Industrial, Automotive	AS4C256M16D3LC-xxBxN
4Gb	512M x 8	1.35V	78-ball FBGA	800 MHz	1600 Mbps/pin	Commercial, Industrial, Automotive	AS4C512M8D3LC-xxBxN
8Gb	512M x 16	1.35V	96-ball FBGA	800 MHz	1866 Mbps/pin	Commercial, Industrial, Automotive	AS4C512M16D3LA-10BxN
8Gb	512M x 16	1.35V	96-ball FBGA	800 MHz	1600 Mbps/pin	Commercial, Industrial	AS4C512M16D3LB-12BxN AS4C512M16D3LC-12BxN
8Gb	1G x 8	1.35V	78-ball FBGA	933 MHz	1866 Mbps/pin	Commercial,Industrial, Automotive	AS4C1G8D3LA-10BxN

\* x=Temperature Range

C=0 ~ +95 °C (Extended) I=-40 ~ +95 °C A=-40 ~ +105 °C

# DDR3/L SDRAM Cross Reference



DENSITY	ALLIANCE	MICRON	SAMSUNG	ISSI	HYNIX	WINBOND	ELITE (ESMT)	ELPIDA	NANYA
512Mb	AS4C32M16D3-12BxN					W6351G6KB-x	M15F5121632A	EDJ5316BASE	
512Mb	AS4C64M8D3-12BxN							EDJ5308BASE	
512Mb	AS4C32M16D3L-12BxN						M15T5121632A	EDJ5316BASE	
512Mb	AS4C64M8D3L-12BxN							EDJ5308BASE	
1G	AS4C64M16D3B-12BxN	MT41J64M16JT(TW)-125 (EOL)	K4B1G1646E/G/I	IS43TR16640	H5TQ1G63D	W631GG6MB	M15F1G1664A	EDJ1116DJ(BA)BG	NT5CB64M16F(G)P
1G	AS4C64M16D3LB/C-12BxN	MT41K64M16JT(TW)-125	K4B1G1646E/G/I	IS43TR16640A(B)L	H5TC1G63EFR (EOL)	W631GU6MB	M15T1G1664A-(2C)	EDJ1116EJBG	NT5CC64M16F(G)P-DI
1G	AS4C128M8D3B-12BxN	MT41J128M8JP(DA)-125	K4B1G0846E/F/G/I	IS43TR81280	H5TQ1G83	W631GG8MB		EDJ1108DJ(BA)BG	NT5CB128M8F(G)N-DI
1G	AS4C128M8D3LB/C-12BxN	MT41K128M8JP(DA)-125	K4B1G0846G/I	IS43TR81280A(B)L	H5TC1G83EFR (EOL)	W631GU8MB		EDJ1108EJBG	NT5CC128M8F(G)N-DI
2G	AS4C128M16D3C-93BCN	MT41J128M16JT(TW)-125	K4B2G1646E/F	IS43TR16128	H5TQ2G63	W632GG6NB	M15F2G16128A	EDJ2116DEBG	NT5CB128M16I(F)P-DI
2G	AS4C128M16D3LC-12BxN	MT41K128M16JT-125	K4B2G1646E/F	IS43TR16128A(B,C)L	H5TC2G63	W632GU6NB	M15F2G16128A	EDJ2116EEBG	NT5CC128M16I(F)P-DI
2G	AS4C256M8D3LC-12BxN	MT41K256M8DA-125	K4B2G0846E/F	IS43TR82560A-xBL	H5TQ2G83FFR-x	W632GU8NB		EDJ2108DEBG	NT5CB256M8IN-FL
4G	AS4C256M16D3C-93BCN AS4C256M16D3C-10BxN AS4C256M16D3C-12BxN	MT41J256M16HA-107 MT41J256M16HA-125	K4B4G1646B/D	IS43TR16256A	H5TQ4G63	W634GG6NB	M15F4G16256A	EDJ4216BFBG (BASE)	NT5CB256M16C(D,E)P-DI
4G	AS4C256M16D3LC-10BxN AS4C256M16D3LC-12BxN	MT41K256M16HA-107/125 MT41K256M16TW-107/125	K4B4G1646E/D/F	IS43TR16256AL	H5TC4G63	W634GU6NB	M15F4G16256A	EDJ4216EFBG	NT5CC256M16C(D,E)P-DI
4G	AS4C512M8D3LC-12BxN	MT41K512M8DA-125	K4B4G0846B/C/D/E	IS43TR85120AL	H5TC4G83	W634GU8MB/NB		EDJ4208EFBG	NT5CC512M8C(D,E)N-DI
8G	AS4C512M16D3LA-10BxN	MT41K512M16VRN-107 MT41K512M16VRP-107 MT41K512M16HA-125 (EOL)	K4B8G1646x (EOL)	IS43TR16512	H5TC8G63CMR		M15T8G16512A		
8G	AS4C512M16D3LB-12BxN	MT41K512M16HA-125 (EOL)	K4B8G1646x (EOL)	IS43TR16512	H5TC8G63CMR		M15T8G16512A		
8G	AS4C1G8D3LA-10BxN	MT41K1G8SN-107/125:E	K4B8G0846x (EOL)	IS43TR81024	H5TC8G83BMR				
8G	MT41K512M16HA-125	MT41K512M16HA-125	K4B8G1646x (EOL)	IS43TR16512	H5TC8G63CMR		M15T8G16512A		



# DDR4



DENSITY	ORG	VCC	PACKAGES	CLOCK FREQUENCY	DATA RATE	TEMPERATURE OPTIONS	ALLIANCE
4Gb	256M x 16	1.2V	96-ball FBGA	1333 MHz	2666 Mbps/pin	Commercial, Industrial	<b>AS4C256M16D4-75BxN</b>
4Gb	512M x 8	1.2V	78-ball FBGA	1333 MHz	2666 Mbps/pin	Commercial, Industrial	<b>AS4C512M8D4-75BxN</b>
4Gb	256M x 16	1.2V	96-ball FBGA	1200 MHz	2400 Mbps/pin	Commercial, Industrial	<b>AS4C256M16D4-83BxN</b>
4Gb	512M x 8	1.2V	78-ball FBGA	1200 MHz	2400 Mbps/pin	Commercial, Industrial	<b>AS4C512M8D4-83BxN</b>
8Gb	512M x 16	1.2V	96-ball FBGA	1333 MHz	2666 Mbps/pin	Commercial, Industrial	<b>AS4C512M16D4-75BxN</b>
8Gb	1G x 8	1.2V	78-ball FBGA	1333 MHz	2666 Mbps/pin	Commercial, Industrial	<b>AS4C1G8D4-75BxN</b>

## DDR4 Cross Reference

DENSITY	ORG	ALLIANCE	MICRON	NANYA	SAMSUNG	HYNIX	ELITE(ESMT)	ISSI
4Gb	256M x 16	<b>AS4C256M16D4-83BxN</b>	MT40A256M16GE/ LY	NT5AD256M16D4/E4	K4A4G165WE K4A4G165WF	H5AN4G6NBJR	M16U4G16256A	IS43QR16256A/B
4Gb	512M x 8	<b>AS4C512M8D4-83BxN</b>	MT40A512M8RH/SA /WE	NT5AD512M8D3/E3	K4A4G085WE K4A4G085WF	H5AN4G8NBJR		IS43QR85120B
4Gb	256M x 16	<b>AS4C256M16D4A-75BxN</b>	MT40A256M16GE /LY	NT5AD256M16D4/E4	K4A4G165WE K4A4G165WF	H5AN4G6NBJR	M16U4G16256A	IS43QR16256A/B
4Gb	512M x 8	<b>AS4C512M8D4A-75BxN</b>	MT40A512M8RH/SA /WE	NT5AD512M8D3/E3	K4A4G085WE K4A4G085WF	H5AN4G8NBJR		IS43QR85120B
8Gb	512M x 16	<b>AS4C512M16D4-75BxN</b>	MT40A512M16LY/ JY/ TB	NT5AD512M16C4 NT5AD512M16A4 NT5AD512M16G4 NT5AD512M16H4	K4A8G165WB K4A8G165WC	H5AN8G6NCJR H5AN8G6NDJR		IS43QR16512A
8Gb	1G x 8	<b>AS4C1G8D4-75BxN</b>	MT40A1G8SA/WE	NT5AD1024M8C3 NT5AD1024M8A3 NT5AD1024M8G3 NT5AD1024M8H3	K4A8G085WB K4A8G085WC	H5AN8G8NCJR H5AN8G8NDJR		IS43QR81024A

# MOBILE LOW POWER SDRAM



DENSITY	ORG	VCC	PACKAGE	CLOCK FREQUENCY	TEMPERATURE OPTIONS	ALLIANCE
128Mb	8M x 16	1.7V ~ 1.95V	54-ball FBGA (8 x 8mm)	166 MHz	Industrial -40°C ~ +85°C	<b>AS4C8M16MSA-6BIN</b>
128Mb	4M x 32	1.7V ~ 1.95V	90-ball FBGA (8 x 13mm)	166 MHz	Industrial -40°C ~ +85°C	<b>AS4C4M32MSA-6BIN</b>
256Mb	16M x 16	1.7V ~ 1.95V	54-ball FBGA (8 x 8mm)	166 MHz	Industrial -40°C ~ +85°C	<b>AS4C16M16MSA-6BIN</b>
256Mb	8M x 32	1.7V ~ 1.95V	90-ball FBGA (8 x 13mm)	166 MHz	Industrial -40°C ~ +85°C	<b>AS4C8M32MSA-6BIN</b>
256Mb	8M x 32	1.7V ~ 1.95V	90-ball FBGA (8 x 13mm)	166 MHz	Industrial -40°C ~ +85°C	<b>AS4C8M32MSB-6BIN</b>
512Mb	32M x 16	1.7V ~ 1.95V	54-ball FBGA (8 x 9mm)	166 MHz	Industrial -40°C ~ +85°C	<b>AS4C32M16MSA-6BIN</b>
512Mb	16M x 32	1.7V ~ 1.95V	90-ball FBGA (8 x 13mm)	166 MHz	Industrial -40°C ~ +85°C	<b>AS4C16M32MSA-6BIN</b>
512Mb	16M x 32	1.7V ~ 1.95V	90-ball FBGA (8 x 13mm)	166 MHz	Industrial -40°C ~ +85°C	<b>AS4C16M32MSB-6BIN</b>

## MOBILE LOW POWER SDRAM Cross Reference

DENSITY	ALLIANCE	MICRON	ISSI	NANYA	ELITE (ESMT)	WINBOND
128M	<b>AS4C8M16MSA-6BIN</b>	NA	IS42VM16800H	NA		W987D6HBGX
128M	<b>AS4C4M32MSA-6BIN</b>	NA	IS42VM32400H	NA		W987D2HBJX
256M	<b>AS4C16M16MSA-6BIN</b>	MT48H16M16LFBF (EOL)	IS42VM16160K	NA	M52D2561616A	W988D6FBGX
256M	<b>AS4C8M32MSA-6BIN</b>	MT48H8M32LFB5 (EOL)	IS42VM32800K	NA	M52D256328A	W988D2FBJX
256M	<b>AS4C8M32MSB-6BIN</b>	MT48H8M32LFB5 (EOL)	IS42VM32800K	NA	M52D256328A	W988D2FBJX
512M	<b>AS4C32M16MSA-6BIN</b>	MT48H32M16LFB4-6 IT	IS42VM16320D/E	NT6SM32M16BG-S1	M52D5123216A	W989D6DBG W989D6KBG
512M	<b>AS4C16M32MSA-6BIN</b>	MT48H16M32LFB5-6 IT	IS42VM32160D/E	NT6SM16M32BK-S1	M52D5123216A	W989D2DBJ W989D2KBJ
512M	<b>AS4C16M32MSB-6BIN</b>	MT48H16M32LFB5-6 IT	IS42VM32160D/E	NT6SM16M32BK-S1	M52D5123216A	W989D2DBJ W989D2KBJ

# MOBILE LOW POWER DDR



DENSITY	ORG	VCC	PACKAGE	CLOCK FREQUENCY	DATA RATE	TEMPERATURE OPTIONS	ALLIANCE
256Mb	16M x 16	1.8V	60-ball FBGA	166 MHz	333 Mbps/pin	Extended -30°C ~ +85°C	AS4C16M16MD1-6BCN
512Mb	32M x 16	1.8V	60-ball FPBGA	200 MHz	400 Mbps/pin	Extended -30°C ~ +85°C	AS4C32M16MD1A-5BCN
512Mb	16M x 32	1.8V	90-ball FPBGA	200 MHz	400 Mbps/pin	Extended -25°C ~ +85°C , Industrial -40°C ~ +85°C	AS4C16M32MD1-5BxN
1Gb	64M x 16	1.8V	60-ball FPBGA	200 MHz	400 Mbps/pin	Industrial -40°C ~ +85°C	AS4C64M16MD1A-5BIN
1Gb	32M x 32	1.8V	90-ball FPBGA	200 MHz	400 Mbps/pin	Industrial -40°C ~ +85°C	AS4C32M32MD1A-5BIN
2Gb	64M x 32	1.8V	90-ball FPBGA	200 MHz	400 Mbps/pin	Extended -25°C ~ +85°C , Industrial -40°C ~ +85°C	AS4C64M32MD1-5BxN
2Gb	64M x 32	1.8V	90-ball FPBGA	200 MHz	400 Mbps/pin	Industrial -40°C ~ +85°C	AS4C64M32MD1A-5BIN

## MOBILE LOW POWER DDR Cross Reference

DENSITY	ALLIANCE	MICRON	SAMSUNG	ISSI	HYNIX	NANYA	ELITE (ESMT)	WINBOND
256Mb	AS4C16M16MD1-6BCN	MT46H16M16LFBF-6	K4X56163SPN	IS43LR16160	HY5MS5B6/ H5MS2562	NT6DM16M16AD-T1	M53D2561616A-6BG2F	W948D6FBHX W948D6KBH
512Mb	AS4C32M16MD1A-5BCN	MT46H32M16LFBF-5	K4X51163PI	IS43LR16320B/C	HY5MS7B6/ H5MS5162	NT6DM32M16A(B)D-T1	M53D5121632A-5BG2T	W949D6DBHX W949D6KBH
512Mb	AS4C16M32MD1-5BxN	MT46H16M32LFB5-5	K4X51323PI	IS43LR32160B/C	H5MS5132/ H5MS5122	NT6DM16M32A(B)C-T1	M53D5123216A-5BG2S	W949D2DBJX W949D2KBJ
1Gb	AS4C64M16MD1A-5BIN	MT46H64M16LFBF	K4X1G163PE	IS43LR16640C/A	H5MS1G62		M53D1G1664A	W94AD6KBH
1Gb	AS4C32M32MD1A-5BIN	MT46H32M32LFB5-5	K4X1G323PF	IS43LR32320C/B	H5MS1G22	NT6DM32M32BC-T1	M53D1G3232A	W94AD2KBJX
2Gb	AS4C64M32MD1-5BCN	MT46H64M32LFKQ-5	K4X2G323PC	IS43LR32640A/B	H5M52G22			
2Gb	AS4C64M32MD1A-5BIN	MT46H64M32LFKQ-5	K4X2G323PC	IS43LR32640A/B	H5M52G22			

# MOBILE LOW POWER DDR2



DENSITY	ORG	VCC	PACKAGE	CLOCK FREQUENCY (MHz)	DATA RATE	TEMPERATURE OPTIONS	ALLIANCE
256Mb	8M X 32	1.2V/1.8V	134-ball FBGA	400 MHz	800 Mbps/pin	Extended -25°C ~ +85°C	AS4C8M32MD2A-25BCN
256Mb	8M X 32	1.2V/1.8V	168-ball POP FBGA	400 MHz	800 Mbps/pin	Extended -25°C ~ +85°C	AS4C8M32MD2A-25BPCN
1Gb	64M x 16	1.2V/1.8V	134-ball FBGA	400 MHz	800 Mbps/pin	Industrial -40°C ~ +85°C	AS4C64M16MD2A-25BIN
1Gb	32M x 32	1.2V/1.8V	134-ball FBGA	400 MHz	800 Mbps/pin	Industrial -40°C ~ +85°C	AS4C32M32MD2A-25BIN
2Gb	128M x 16	1.2V/1.8V	134-ball FBGA	400MHz	800 Mbps/pin	Industrial -40°C ~ +85°C	AS4C128M16MD2A-25BIN
2Gb	64M x 32	1.2V/1.8V	134-ball FBGA	400 MHz	800 Mbps/pin	Industrial -40°C ~ +85°C	AS4C64M32MD2A-25BIN
4Gb	128M x 32	1.2V/1.8V	134-ball FBGA	533 MHz	1066 Mbps/pin	Industrial -40°C ~ +85°C	AS4C128M32MD2A-18BIN
4Gb	128M x 32	1.2V/1.8V	134-ball FBGA	400 MHz	800 Mbps/pin	Industrial -40°C ~ +85°C	AS4C128M32MD2A-25BIN
4Gb	128M X 32	1.2V/1.8V	134-ball FBGA	400 MHz	800 Mbps/pin	Industrial -40°C ~ +85°C	MT42L128M32DITJ-25IT:A

## MOBILE LOW POWER DDR2 Cross Reference

DENSITY	ALLIANCE	MICRON	SAMSUNG	ISSI	HYNIX	NANYA	ELITE (ESMT)	WINBOND
256Mb	AS4C8M32MD2A-25BPCN AS4C8M32MD2A-25BCN			IS43LD32800A/B-25BL/I IS43LD32800B-3BL/I				W978H2KBVX2E
1Gb	AS4C64M16MD2A-25BIN	MT42L64M16D1HE-25		IS43LD16640D/C/A		NT6TL64M16BA(I)-G0	M54D1G1664A	W97AH6KBVX2 W97AH6NBV
1Gb	AS4C32M32MD2A-25BIN	MT42L32M32D1HE-25 MT42L32M32D2HE-25		IS43LD32320D/C/A		NT6TL32M32BI(A)-G0	M54D1G3232A	W97AH2KBVX2 W97AH2NBV
2Gb	AS4C128M16MD2A-25BIN	MT42L128M16D1MH-25 MT42L128M16D1MG-25 MT42L128M16D2		IS43LD16128B/C		NT6TL128M16CI(A)-G0	M54D2G3264A	W97BH6KBVX2 W97BH6MBV
2Gb	AS4C64M32MD2A-25BIN	MT42L64M32D1MH-25 MT42L64M32D1MG-25 MT42L64M32D2		IS43LD32640B/C		NT6TL64M32CI(A)-G0	M54D2G16128A	W97BH2KBVX2 W97BH2MBV
4Gb	AS4C128M32MD2A-18BIN	MT42L128M32D1GU-18 (EOL) MT42L128M32D1GV-18 (EOL)		IS43LD32128C/B/A		NT6TL128M32BI(A)-G0		
4Gb	AS4C128M32MD2A-25BIN	MT42L128M32D1GU-25 (EOL) MT42L128M32D1GV-25 (EOL)		IS43LD32128C/B/A		NT6TL128M32BI(A)-G0		

# LPDDR4



DENSITY	ORG	VCC	PACKAGES	CLOCK FREQUENCY	DATA RATE	TEMPERATURE OPTIONS	Alliance Memory
2Gb	128M x 16	1.1,1.8V	200b FBGA	1600 MHz	3200 Mbps	Automotive A2 (-40°C to 105°C)	<b>AS4C128M16MD4-062BAN</b>
4Gb	128M x 32	1.1,1.8V	200b FBGA	1600 MHz	3200 Mbps	Automotive A2 (-40°C to 105°C)	<b>AS4C128M32MD4-062BAN</b>
4Gb	256M x 16	1.1,1.8V	200b FBGA	1600 MHz	3200 Mbps	Automotive A2 (-40°C to 105°C)	<b>AS4C256M16MD4-062BAN</b>
8Gb	256M x 32	1.1,1.8V	200b FBGA	1600 MHz	3200 Mbps	Automotive A2 (-40°C to 105°C)	<b>AS4C256M32MD4-062BAN</b>

# LPDDR4X

DENSITY	ORG	VCC	PACKAGES	CLOCK FREQUENCY	DATA RATE	TEMPERATURE OPTIONS	Alliance Memory
8Gb	256M x 32	1.8V / 1.1V / 0.6V	200b FBGA	1600 MHz	3200 Mbps	Automotive A2 (-40°C to 105°C)	<b>AS4C256M32MD4V-062BAN</b>

# LPDDR4 / LPDDR4X Cross Reference

DENSITY	ORG	ALLIANCE	MICRON	SAMSUNG	HYNIX	NANYA	ISSI	WINBOND
2Gb	128M x 16	<b>AS4C128M16MD4-062BAN</b>	MT53E128M16D1DS			NT6AN128M16AV	IS43/46LQ16128A IS43/46LQ16128EA	W66BL6NBU W66BP6NBU
4Gb	128M x 32	<b>AS4C128M32MD4-062BAN</b>	MT53B128M32D1DS	K4F4E3S4HF-GFCJ K4F4E3S4HF-GHCJ		NT6AN128T32AV	IS43/46LQ32128A IS43/46LQ32128EA	W66CL2NQU W66CP2NQU
4Gb	256M x 16	<b>AS4C256M16MD4-062BAN</b>	MT53E256M16D1DS		H9HCNNN4KUMLHR	NT6AN256M16AV	IS43/46LQ16256A IS43/46LQ16256EA	W66CP6NBU
8Gb	256M x 32	<b>AS4C256M32MD4-062BAN</b>	MT53B256M32D1DS	K4F8E304HB-MGCJ K4F8E3S4HB-MFCJ K4F8E3S4HB-MHCJ	H9HCNNN8KUMLHR	NT6AN256T32AV	IS43/46LQ32256A IS43/46LQ32256EA	W66DP2NQU
8Gb	256M x 32	<b>AS4C256M32MD4V-062BAN</b>	MT53E256M32D2DS	K4U8E3S4AD-GFCL K4U8E3S4AD-GHCL		NT6AP256T32AV	IS43/46LQ32256AL IS43/46LQ32256EAL	W66DQ2NQU

# Fast Asynchronous SRAM

## 5V FAST ASYNCHRONOUS SRAM



DENSITY	ORG	VCC	PACKAGES	TEMPERATURE	SPEED (NS)	ALLIANCE
64Kb	8K x 8	5V	SOJ (28pin),Skinny PDIP (28pin-300mil)	Commercial 0°C ~ +70°C Industrial -40°C ~ +85°C	15	AS7C164A-15JxN AS7C164A-15PxN
256Kb	32K x 8	5V	SOJ (28pin) TSOP I (28pin)	Commercial 0°C ~ +70°C Industrial -40°C ~ +85°C	10/12/15/20	AS7C256A-xxJxN AS7C256A-xxTxN
256Kb	32K x 8	5V	PDIP (28pin)	Industrial -40°C ~ +85°C	15	AS7C256B-15PIN
512Kb	32K x 16	5V	SOJ (44) TSOP II (44)	Commercial 0°C ~ +70°C	12/15	AS7C513B-15JCN AS7C513B-xxTCN
1Mb	128K x 8	5V	SOJ (32.3) SOJ (32.4) TSOP I (32)	Commercial 0°C ~ +70°C Industrial -40°C ~ +85°C	12/15/20	AS7C1024B-xxJxN AS7C1024B-xxTxN AS7C1024B-xxTJxN
1Mb	128K x 8	5V	SOJ (32.3) SOJ (32.4)	Commercial 0°C ~ +70°C Industrial -40°C ~ +85°C	10/12/15	AS7C1025B-xxJIN AS7C1025B-xxTJCN
1Mb	64K x 16	5V	SOJ (44) TSOP II (44)	Commercial 0°C ~ +70°C Industrial -40°C ~ +85°C	10/12/15/20	AS7C1026B-xxJxN AS7C1026B-xxTxN
4Mb	512K x 8	5V	SOJ (36) TSOP II (44)	Commercial 0°C ~ +70°C Industrial -40°C ~ +85°C	12/15/20	AS7C4096A-xxJxN AS7C4096A-xxTxN
4Mb	256K x 16	5V	SOJ (44) TSOP II (44)	Commercial 0°C ~ +70°C Industrial -40°C ~ +85°C	12/15/20	AS7C4098A-xxJxN AS7C4098A-xxTxN

# Fast Asynchronous SRAM

## 3.3V FAST ASYNCHRONOUS SRAM



DENSITY	ORG	VCC	PACKAGES	TEMPERATURE	SPEED (NS)	ALLIANCE
256Kb	32K x 8	3.3V	SOJ (28) TSOP I (28)	Commercial Industrial	10/12/15/20	AS7C3256A-xxJxN AS7C3256A-xxTxN
512Kb	32K x 16	3.3V	SOJ (44) TSOP II (44)	Commercial	10/12/15/20	AS7C3513B-xxJCN AS7C3513B-xxTCN
1Mb	128K x 8	3.3V	SOJ (32.3 & 32.4) TSOP I (32)	Commercial	10/12/15/20	AS7C31024B-xxTJCN AS7C31024B-xxJCN
1Mb	128K x 8	3.3V	SOJ (32.3 & 32.4)	Commercial Industrial	10/12/15/20	AS7C31025B-xxTJxN AS7C31025B-xxJxN
1Mb	64K x 16	3.3V	SOJ (44) TSOP II (44)	Commercial Industrial	10/12/15/20	AS7C31026B-xxJxN AS7C31026B-xxTxN
2Mb	128K x 16	3.3V	TSOP II (44)	Commercial Industrial	10/12/15/20	AS7C32098A-xxTxN
2Mb	256K x 8	3.3V	TSOP II (44)	Commercial Industrial	10/12/15/20	AS7C32096A-xxTxN
4Mb	512K x 8	3.3V	SOJ (36) TSOP II (44) TFBGA (36)	Commercial Industrial	8/10/12/15/20	AS7C34096A-xxJxN, AS7C34096A-xxTxN AS7C34096B-10TIN, AS7C34096A-10BIN
4Mb	256K x 16	3.3V	SOJ (44) TSOP II (44) TFBGA (48)	Commercial Industrial	8/10/12/15/20	AS7C34098A-xxJxN, AS7C34098A-xxTxN AS7C34098B-xxBxN, AS7C34098B-10TIN/BIN
8Mb	1024K x 8	3.3V	TFBGA (48) TSOP II (44)	Industrial	10	AS7C38096A-10TIN, AS7C38096A-10BIN AS7C38096B-10BIN
8Mb	512K x 16	3.3V	TFBGA (48) TSOP II (44)	Industrial	10	AS7C38098A-10TIN, AS7C38098A-10BIN
8Mb	256K x 32	3.3V	TFBGA (90)	Industrial	10	AS7C325632-10BIN
16Mb	512K x32	3.3V	TFBGA (90)	Industrial	10	AS7C351232-10BIN
16Mb	1M x 16	3.3V	TFBGA (48) TSOP I (48) TSOP II (54)	Industrial	10	AS7C316098A-10TIN, AS7C316098A-10BIN AS7C316098B-10TIN, AS7C316098B-10BIN
16Mb	2M x 8	3.3V	TFBGA (48) TSOP I (48) TSOP II (54) TSOP II (44)	Industrial	10	AS7C316096A-10TIN AS7C316096B-10TIN, AS7C316096B-10BIN AS7C316096C-10TIN, AS7C316096C-10BIN

# Fast Asynchronous SRAM Cross Reference



## 64K FAST

ORG	VCC	PACKAGE	SPEED (NS)	ALLIANCE	SAMSUNG	CYPRESS (EOL)	IDT	ISSI
8K x 8	5V	28pin SOJ (300mil)	15	AS7C164A-15JxN		CY7C185-15VI (EOL)	IDT7164SXXYG IDT7164L20YG/I	IS61C64AL-XXJLI
8K x 8	5V	28pin Skinny PDIP 300mil	15	AS7C164A-15PxN		CY7C185-20PXC (EOL)		

## 256K FAST

ORG	VCC	PACKAGE	SPEED (NS)	ALLIANCE	SAMSUNG (EOL)	CYPRESS	IDT	ISSI
32K x 8	5V	28pin SOJ	10,12,15,20	AS7C256A-xxJCN/JIN	K6E0808C (EOL)	CY7C199D-XXVXI	IDT71256SAXXYG/71256SA	IS61C256AL-XXJL
32K x 8	5V	28pin TSOP I	10,12,15,20	AS7C256A-xxTCN/TIN		CY7C199D-XXZXI	IDT71256SAXXPZG/71256SA	IS61C256AL-XXTL
32K x 8	3.3V	28pin SOJ	10,12,15,20	AS7C3256A-xxJCN/JIN	K6E0808V	CY7C1399BN-12VXC	IDT71V256SAXXYG/71V256SA	IS61LV256AL-10JL
32K x 8	3.3V	28pin TSOP I	10,12,15,20	AS7C3256A-xxTCN/TIN		CY7C1399BN-XXZXI	IDT71V256SAXXPZG/71V256SA	IS61LV256AL-10TL

## 512K FAST

ORG	VCC	PACKAGE	SPEED (NS)	ALLIANCE	SAMSUNG	CYPRESS	IDT	ISSI
32K x 16	5V	44pin SOJ (400MIL)	15	AS7C513B-xxJCN		CY7C1020D-10VXI		IS61C321AL-12KLI
32K x 16	5V	44pin TSOP II (400MIL)	12,15	AS7C513B-xxTCN		CY7C1020D-10ZSXI		IS61C3216AL-12TLI
32K x 16	3.3V	44pin TSOP II (400MIL)	12,15,20	AS7C3513B-xxTCN		CY7C1020DV33-10ZSXI		IS61WV3216BLL-12TLI
32K x 16	3.3V	44pin SOJ (400MIL)	10,12,15	AS7C3513B-xxJCN		CY7C1020DV33-10VXI		



# Fast Asynchronous SRAM Cross Reference



## 1M FAST

ORG	VCC	PACKAGE	SPEED (NS)	ALLIANCE	SAMSUNG (EOL)	CYPRESS	IDT	ISSI
128K x 8	5V	32pin SOJ (400MIL) (Center P&G)	12,15,20	AS7C1025B-xxJxN	K6R1008C1D-KI10		IDT71124SXXYG / 71124	
128K x 8	5V	32pin SOJ (300MIL) (Center P&G)	10,12,15,20	AS7C1025B-xxTJCN		CY7C1019D-10VXI		
128K x 8	3.3V	32pin SOJ (400MIL) (Center P&G)	10,12,15,20	AS7C31025B-xxJxN	K6R1008V1D-KI10	CY7C1019DV33-10VXI	IDT71V124SAXXYG / 71V124	IS63WV1024L-10KLI
128K x 8	3.3V	32pin TSOP II (Center P&G)	12	AS7C31025C-12TIN	K6R1008V1D-UIXX	CY7C1019DV33-XX-ZSXI	IDT71V124SAXXTYG / 71V124	IS63WV1288DBLLXXTLI
128K x 8	3.3V	32pin SOJ (300MIL) (Center P&G)	10,12,15,20	AS7C31025B-xxTJCN		CY7C1018DV33-10VXI	IDT71V124SAXXTYG / 71V124	IS63WV1288DBLL-10JLI
128K x 8	5V	32pin SOJ (400MIL) (Corner P&G)	12,15,20	AS7C1024B-xxJCN/JIN		CY7C109D-10VXI	IDT71024SXXYG / 71024	IS61C1024AL-12KLI
128K x 8	5V	32pin TSOP I (Corner P&G)	12,15,20	AS7C1024B-xxTCN		CY7C109D-10ZXI		IS61C1024AL-12TLI
128K x 8	5V	32pin SOJ (300MIL) (Corner P&G)	12,15,20	AS7C1024B-xxTJCN		CY7C1009D-10VXI	IDT71024SXXTYG / 71024	IS61C1024AL-12JLI
128K x 8	3.3V	32pin SOJ (400MIL) (Corner P&G)	12,15,20	AS7C31024B-xxJCN		CY1019DV33-10VXI		IS63WV1288DBLL-10KLI
128K x 8	3.3V	32pin TSOP I (Corner P&G)	10,12,15,20	AS7C31024B-xxTCN				IS63WV1288DBLL-10HLI
128K x 8	3.3V	32pin SOJ (300MIL) (Corner P&G)	10,12,15,20	AS7C31024B-xxTJCN		CY7C1018DV33-10VXI		IS63WV1288DBLL-10JLI
64K x 16	5V	44pin SOJ (400MIL)	10,12,15,20	AS7C1026B-xxJxN	K6R1016C1D-KI10	CY7C1021D-XXVXC	IDT71016SXXYG / 71016	IS61C6416AL-12KLI
64K x 16	5V	44pin TSOP II (400MIL)	10,12,15,20	AS7C1026B-xxTxN	K6R1016C1D-UI10	CY7C1021D-XXZSXI	IDT71016SXXPHG / 71016	IS61C6416AL-12TLI
64K x 16	3.3V	44pin SOJ (400MIL)	10,12,15,20	AS7C31026B-xxJxN	K6R1016V1D-KI10	CY7C1021DV33-XXVXI	IDT71V016SAXXYG / 71V016	IS61WV6416DBLL-10KLI
64K x 16	3.3V	44pin TSOP II (400MIL)	10,12,15,20	AS7C31026B-xxTxN	K6R1016V1D-UI10	CY7C1021DV33-XXZSXI	IDT71V016SAXXPHG / 71V016	IS61WV6416DBLL-10TLI

## 2M FAST

ORG	VCC	PACKAGE	SPEED (NS)	ALLIANCE	SAMSUNG	CYPRESS	IDT	ISSI
128K x 16	3.3V	44pin TSOP II	10,12,15,20	AS7C32098A-xxTxN		CY7C1011DV33-10ZSXI		IS61WV12816DBLL-10TL
256K x 8	3.3V	44pin TSOP II	10,12,15,20	AS7C32096A-xxTxN		CY7C1010DV33-10ZSXI		IS61WV256EDBLL-10TLI

# Fast Asynchronous SRAM Cross Reference



## 4M FAST

ORG	VCC	PACKAGE	SPEED (NS)	ALLIANCE	SAMSUNG	CYPRESS	IDT	ISSI
512K x 8	5V	36pin SOJ (400MIL)	12,15,20	<b>AS7C4096A-xxJxN</b>	K6R4008C1D-KI10	CY7C1049D-10VXI		IS61C5128AL-10KLI
512K x 8	5V	44pin TSOP II (400MIL)	12,15,20	<b>AS7C4096A-xxTxN</b>	K6R4008C1D-UI10			IS61C5128AL-10TLI
512K x 8	3.3V	36pin SOJ (400MIL)	8,10,12,15,20	<b>AS7C34096A-xxJxN</b>	K6R4008V1D-KI10	CY7C1049DV33-10VXI	IDT71V424SXXYG / 71V424	IS61WV5128EDBLL-10KLI
512K x 8	3.3V	44pin TSOP II (400MIL)	10,12,15,20	<b>AS7C34096A-xxTxN</b>	K6R4008V1D-UI10	CY7C1049DV33-10ZSI	IDT71V424SXXPHG / 71V424	IS61WV5128EDBLL-10TLI
256K x 16	5V	44pin SOJ (400MIL)	12,15,20	<b>AS7C4098A-xxJxN</b>	K6R4016C1D-KI10	CY7C1041D-10VXI		IS61C25616AL-10KLI
256K x 16	5V	44pin TSOP II (400MIL)	12,15,20	<b>AS7C4098A-xxTxN</b>	K6R4016C1D-UI10	CY7C1041D-10ZSXI		IS61C25616AL-10TL
256K x 16	3.3V	44pin SOJ (400MIL)	10,12,15,20	<b>AS7C34098A-xxJxN</b>	K6R4016V1D-KI10	CY7C1041DV33-10VXI	IDT71V416SXXYG / 71V416	NA
256K x 16	3.3V	44pin TSOP II (400MIL)	8,10,12,15,20	<b>AS7C34098A-xxTxN</b>	K6R4016V1D-UI10	CY7C1041DV33-10ZSXI	IDT71V416SXXPHG / 71V416	IS61WV25616EDBLL-10TLI
256K x 16	3.3V	48ball TFBGA	10	<b>AS7C34098A-xxBIN</b>		CY7C1041DV33-10BVXI	IDT71V416SXXBE / 71V416	IS61WV25616EDBLL-10BLI

## 8M FAST

ORG	VCC	PACKAGE	SPEED (NS)	ALLIANCE	SAMSUNG	CYPRESS	IDT	ISSI
512K x 16	3.3V	44pin TSOP II	10	<b>AS7C38098A-10TIN</b>		CY7C1051DV33-10ZSXI		IS61WV51216BLL-XXTLI
512K x 16	3.3V	48ball TFBGA	10	<b>AS7C38098A-10BIN</b>		CY7C1051DV33-10BAXI		IS61WV51216BLL-10MLI
256K x 32	3.3V	90ball TFBGA	10	<b>AS7C325632-10BIN</b>				IS61WV25632BLL-10BLI
1M x 8	3.3V	44pin TSOP II	10	<b>AS7C38096A-10TIN</b>		CY7C1059DV33-10ZSXI		IS61WV10248BLL-10TLI
1M x 8	3.3V	48ball TFBGA (different pinout)	10	<b>AS7C38096A-10BIN</b>				
1M x 8	3.3V	48ball TFBGA (different pinout)	10	<b>AS7C38096B-10BIN</b>				IS61WV10248BLL-10MLI

# Fast Asynchronous SRAM Cross Reference



## 16M FAST

ORG	VCC	PACKAGE	SPEED (NS)	ALLIANCE	SAMSUNG	CYPRESS	IDT	ISSI
1M x 16	3.3V	48pin TSOP I	10	AS7C316098A-10TIN		CY7C1061GN30-10ZXI		IS61WV102416FBLL-10TLI
1M x 16	3.3V	48ball TFBGA	10	AS7C316098A-10BIN		CY7C1061GN30-10BV1XI		IS61WV102416FBLL-10BLI
1M x 16	3.3V	54pin TSOP II	10	AS7C316098B-10TIN		CY7C1061GN30-10ZSXI		IS61WV102416FBLL-10T2LI
1M x 16	3.3V	48ball TFBGA	10	AS7C316098B-10BIN				
2M x 8	3.3V	48pin TSOP I	10	AS7C316096A-10TIN				
2M x 8	3.3V	54pin TSOP II	10	AS7C316096B-10TIN		CY7C1069GN30-10ZSXI/ CY7C1069DV33-10ZSXI		IS61WV20488FBLL-10T2LI
2M x 8	3.3V	44pin TSOP II	10	AS7C316096C-10TIN				IS61WV20488FBLL-10TLI
2M x 8	3.3V	48ball TFBGA (1CE)	10	AS7C316096C-10BIN				IS61WV20488FBLL-10BLI
2M x 8	3.3V	48ball TFBGA (2CE)	10	AS7C316096B-10BIN		CY7C1069GN30-10BVXI		
512K x 32	3.3V	90ball TFBGA	10	A7C351232-10BIN				IS61WV51232BLL-10BLI

# Low Power Asynchronous SRAM

## 2.7V - 3.6V LOW POWER SRAMS



DENSITY	ORG	VCC	PACKAGES	SPEED (NS)	ALLIANCE
256Kb	32K x 8	2.5V ~ 3.6V	28pin SOP (330mm)	70	AS62V256A
2Mb	256K x 8	2.7 ~ 3.6V	32pin 450 mil SOP, 32pin TSOP I (8 x 20mm), 32pin STSOP (8 x 13.4mm), 36ball TFBGA (6 x 8mm)	55	AS6C2008
8Mb	1024K x 8	2.7 ~ 3.6V	48ball FPBGA (8 x 10mm)	45	AS6C8008A
8Mb	1024k x 8	2.7 ~ 3.6V	44pin TSOP II	45/55	AS6C8008B
8Mb	512K x 16	2.7 ~ 3.6V	44pin TSOP II, 48ball TFBGA (8 x 10mm*)**	45/55	AS6C8016B
16Mb	1M x 16	2.7 ~ 3.6V	48ball TFBGA (6 x 8mm), 48pin TSOP I (12 x 20mm)	45/55	AS6C1616/ AS6C1616B
16Mb	2M x 8	2.7 ~ 3.6V	44pin TSOP II, 48ball TFBGA	55	AS6C1608B
32Mb	2M x 16 / 4M x 8	2.7 ~ 3.6V	48pin TSOP I (12 x 20mm) , 48ball TFBGA (6 x 8mm)	55	AS6C3216A
64Mb	4M x 16 / 8M x 8	2.7 ~ 3.6V	48pin TSOP I , 48ball TFBGA (6x8mm) , Dual chip select 4M x 16 or 8M x 8	55	AS6C6416

# Low Power Asynchronous SRAM

## 2.7V - 5.5V LOW POWER SRAMS



DENSITY	ORG	VCC	PACKAGES	SPEED (NS)	ALLIANCE
64Kb	8K x 8	2.7 ~ 5.5V	28pin 600 mil PDIP, 28pin 330 mil SOP, 28pin sTSOP (8x13.4mm)	55	AS6C6264
256Kb	32K x 8	2.7 ~ 5.5V	28pin 600 mil PDIP, 28pin 330 mil SOP, 28pin sTSOP (8x13.4mm)	55	AS6C62256
1Mb	64K x 16	2.7 ~ 5.5V	44pin 400 mil TSOP II TFBGA (48)	55	AS6C1016
1Mb	128K x 8	2.7 ~ 5.5V	32pin 450 mil SOP, 32pin TSOP I (8 x 20mm), 32pin sTSOP (8 x 13.4mm), TFBGA (36), 32pin PDIP	55	AS6C1008
2Mb	256K x 8	2.7 ~ 5.5V	32pin 450 mil SOP, 32pin TSOP I (8 x 20mm) 32pin sTSOP (8 x 13.4mm), TFBGA (36)	55	AS6C2008A
2Mb	128K x 16	2.7 ~ 5.5V	44pin 400 mil TSOP II, TFBGA (48)	55	AS6C2016
4Mb	512K x 8	2.7 ~ 5.5V	32pin 450 mil SOP, 32pin TSOP I (8 x 20mm), 32pin sTSOP (8 x 13.4mm), TFBGA (48), 32pin 600 mil PDIP, 32pin TSOP II	55/70	AS6C4008
4Mb	256K x 16	2.7 ~ 5.5V	44pin TSOP II, TFBGA (48)	55	AS6C4016
8Mb	1024K x 8	2.7 ~ 5.5V	44pin TSOP II, TFBGA (48)	55	AS6C8008/B
8Mb	512K x 16	2.7 ~ 5.5V	44pin TSOP II, 48ball TFBGA (6 x 8mm*) <b>one chip select pins:B5**</b> , 48pin TSOP I	55	AS6C8016/B

\* = AS6C8016A TFBGA PART'S DIE SIZE IS 8X10MM – WHICH IS BIGGER THAN AS6C8016 TFBGA PACKAGE WHICH IS 6X8MM – BUT THEIR LEAD PITCH ARE THE SAME.

\*\* = AS6C8016A TFBGA PART HAS TWO CHIP SELECT PINS: B5 AND A6. THE VALID LEVEL FOR B5 PIN IS LOW LEVEL, THE VALID LEVEL FOR A6 PIN IS HIGH LEVEL IF CUSTOMER REPLACES A SINGLE CS PIN PART LIKE AS6C8016 WITH AS6C8016A NEED TO PULL UP A6 PIN.

# Low Power Asynchronous SRAM Cross Reference



## 64K LOW POWER

ORG	VCC	PACKAGE	ALLIANCE	ZMD (EOL)	CYPRESS (EOL)	HITACHI (EOL)	NEC (EOL)	HYNIX (EOL)
8K x 8	2.7V ~ 5.5V	28pin 600mil DIP	<b>AS6C6264-55PxN</b>	U6264BDC07LLG1		HM6264BLP		HY6264P
8K x 8	2.7V ~ 5.5V	28pin 330mil SOP	<b>AS6C6264-55SxN</b>	U6264BS2C07LLG1	CY6264-55SNXI	HM6264BLFP	uPD4464	HY6264G
8K x 8	2.7V ~ 5.5V	28pin STSOP (8 x 13.4 mm)	<b>AS6C6264-55STCN</b>					

## 256K LOW POWER

ORG	VCC	PACKAGE	ALLIANCE	ZMD	SAMSUNG (EOL)	CYPRESS (EOL)	RENESAS	BRILLIANCE (EOL)	ISSI
32K x 8	2.7V ~ 5.5V	28pin 600mil DIP	<b>AS6C62256-55PCN</b>	U62256ADC07LLG1	K6X0808C1D-DF55	CY62256NLL-70PXC		BS62LV256PCP-55	
32K x 8	2.7V ~ 5.5V	28pin 330mil SOP	<b>AS6C62256-55SxN</b>	U62256AS2C07LLG1	K6X0808C1D-BF55	CY62256NLL-55SNXI	R1LP5256ESP-5S	BS62LV256SCP-55	IS62C256AL-45ULI
32K x 8	2.5V ~ 3.6V	28pin 330mil SOP	<b>AS62V256-70SIN</b>			CY62256NVLL-70SNXI	R1LV5256ESP-5S	BS62LV256SCP-55	IS62LV256AL-45ULI
32K x 8	2.7V ~ 5.5V	28pin STSOP (8 x 13.4 mm)	<b>AS6C62256-55STxN</b>		K6X0808C1D-LF55	CY62256NLL-55ZRXI	R1LP5256ESA-5S	BS62LV256STCP-55	IS62LV256AL-45TLI

## 1M LOW POWER

ORG	VCC	PACKAGE	ALLIANCE	SAMSUNG (EOL)	CYPRESS	RENESAS	RENESAS	BRILLIANCE (EOL)	NEC (EOL)	ISSI
128K x 8	2.7V ~ 5.5V	32pin 600mil DIP	<b>AS6C1008-55PxN</b>	K6X1008C2D-DB55				BS62LV1027PCP-55	uPD431000ACZ-70L	
128K x 8	2.7V ~ 5.5V	32pin 450mil SOP	<b>AS6C1008-55SIN</b>	K6X1008C2D-GF55(Lead)/BF	CY62128ELL-45SX1	M5M51008DFP-55HI	R1LP0108ESP-5SI	BS62LV1027SIP-55	uPD431000AGW-70L	IS62C1024AL-35QLI
128K x 8	2.7V ~ 5.5V	32pin TSOP I (8 x 20 mm)	<b>AS6C1008-55TIN</b>	K6X1008C2D-TF55 or PF	CY62128ELL-45ZXI	M5M51008DVP-55HI	R1LP0108ESF-5SI	BS62LV1027TIP-55	uPD431000AGZ-70LL-KKH	IS62C1024AL-35TLI
128K x 8	2.7V ~ 5.5V	32pin STSOP (8 x 13.4 mm)	<b>AS6C1008-55STIN</b>		CY62128ELL-45ZAXI	M5M51008DKV-55HI	R1LP0108ESA-5SI	BS62LV1027STIP-55	uPD431000AGU-B10-9JH	IS62C1024AL-45HLI
64K x 16	2.7V ~ 5.5V	48ball TFBGA	<b>AS6C1016-55BIN</b>	K6F1016U4C-EF55	CY62127DV30LL-55BVXI			BS616LV1010AI-70		IS62WV6416DBLL-45BLI
64K x 16	2.7V ~ 5.5V	44pin TSOP II	<b>AS6C1016-55ZIN</b>		CY62126EV30LL-45SXIT			BS616LV1010EI-70		IS62WV6416DBLL-45TLI

# Low Power Asynchronous SRAM Cross Reference



## 2M LOW POWER

ORG	VCC	PACKAGE	ALLIANCE	SAMSUNG (EOL)	CYPRESS	RENESAS	RENESAS	BRILLIANCE (EOL)	ISSI
256K x 8	2.7V ~ 3.6V	32pin 450mil SOP	AS6C2008-55SIN		CY62138FV30LL-45SXI			BS62LV2006SIP-55	
256K x 8	2.7V ~ 3.6V	32pin TSOP I (8 x 20 mm)	AS6C2008-55TIN		CY62138FV30LL-45ZXI			BS62LV2006TIP-55	IS62WV2568BLL-55TLI
256K x 8	2.7V ~ 3.6V	32pin STSOP (8 x 13.4 mm)	AS6C2008-55STIN	K6F2008V2E-LF70000	CY62138FV30LL-45ZAXI	M5M5V208AKV-55HI	R1LV0208BSA-5SI	BS62LV2006STIP-55	IS62WV2568BLL-55HLI
256K x 8	2.7V ~ 3.6V	36ball TFBGA (6mm x 8mm)	AS6C2008-55BIN		CY62138FV30LL-45BVXI				IS62WV2568BLL-55B2LI
128K x 16	2.7V ~ 5.5V	44pin TSOP II	AS6C2016-55ZIN		CY62136FVLL-70ZSXI	M5M5V216ATP-70HI	R1LV0216-BSB-5SI	BS616LV2016EIP-55	IS62WV12816BLL-55TLI
128K x 16	2.7V ~ 5.5V	48ball TFBGA	AS6C2016-55BIN	K6F2016U4E-EF55000	CY62136FVLL-70BVXI			BS616LV2019AIG-55	IS62WV12816BLL-55B2LI
256K x 8	2.7V ~ 5.5V	32pin 450mil SOP	AS6C2008A-55SIN		CY62138FV30LL-45SXI			BS62LV2006SIP-55	
256K x 8	2.7V ~ 5.5V	32pin TSOP I (8 x 20mm)	AS6C2008A-55TIN		CY62138FV30LL-45ZXI			BS62LV2006TIP-55	IS62WV2568BLL-55TLI IS62WV2568BLL-70TLI
256K x 8	2.7V ~ 5.5V	36ball TFBGA (6mm x 8mm)	AS6C2008A-55BIN		CY62138FV30LL-45BVXI				IS62WV2568BLL-55BLI IS62WV2568BLL-70BLI
256K x 8	2.7V ~ 5.5V	32pin TSOP I (8 x 13.4mm)	AS6C2008A-55STIN		CY62138FV30LL-55ZAXI			BS62LV2006TIP-55	IS62WV2568BLL-55HLI IS62WV2568BLL-70HLI

## 4M LOW POWER

ORG	VCC	PACKAGE	ALLIANCE	SAMSUNG (EOL)	CYPRESS	RENESAS	BRILLIANCE (EOL)	ISSI
512K x 8	2.7 ~ 5.5V	32pin 600mil DIP	AS6C4008-55PxN	K4X4008C1F-DB55			BS62LV4006PCP-55	
512K x 8	2.7 ~ 5.5V	32pin 450mil SOP	AS6C4008-55SIN	K6X4008C1F-GF55 or BF	CY62148ELL-55SXI CY62148EV30LL-55SXI	R1LV0408CSP-5SI	BS62LV4006SIP-55	IS62C5128BLL-45QLI
512K x 8	2.7 ~ 5.5V	32pin STSOP (8 x 13.4mm)	AS6C4008-55STIN	K6X4008T1F-YF55 or LF	CY62148ELL-55ZAXI CY62148EV30LL-55ZAXI	R1LV0408DSA-5SI	BS62LV4006STIP-55	IS62C5128BL-45HLI
512K x 8	2.7 ~ 5.5V	32pin TSOP II	AS6C4008-55ZIN	K6X4008C1F-VF55	CY62148ELL-45ZSXI CY62148DV30	R1LV0408DSB-5SI	BS62LV4006ECP55	IS62WV5128DBLL-45T2LI
512K x 8	2.7 ~ 5.5V	36pin TFBGA (6mm x 8mm)	AS6C4008-55BIN		CY62148EV30LL-55BVXI CY62148DV30-55BVXI	R1LV0408DBG-5SI	BS62LV4006HIG-55	IS62WV5128EBLL-45BLI
512K x 8	2.7 ~ 5.5V	32pin TSOP I (8 x 20mm)	AS6C4008-55TIN				BS62LV4006ECP-55	IS62WV5128EBLL-45QLI
256K x 16	2.7 ~ 5.5V	44pin TSOP II	AS6C4016-55ZIN	K6X4016C3F-TF70000	CY62146ELL-45ZSXI		BS616LV4017EIP-55	IS62WV5128BLL-55TLI
				K6X4016T3F-TF70000	CY62147E30LL-45ZSXI	R1LV0414DSB-5SI	BS616LV4017EIP-55	IS62C25616BL-45T2LI
256K x 16	2.7V~ 5.5V	48ball TFBGA	AS6C4016-55BIN	K6F4016U6G-EF70000	CY62147E30LL-45BVXI	RMLV0416EGBG-4S2	BS616LV4017AIP-55	IS62WV25616DBLL-45BLI

# Low Power Asynchronous SRAM Cross Reference



## 8M LOW POWER

ORG	VCC	PACKAGE	ALLIANCE	SAMSUNG (EOL)	CYPRESS	RENESAS	RENESAS	RENESAS	BRILLIANCE	ISSI
1M x 8	2.7 ~ 5.5V	44pin TSOP II	AS6C8008-55ZIN	K6X8008(C/T)2B-UF55	CY62158EV30LL-45ZSXI		R1LV0808ASB-5SI	HM62V8100LTTI-5SL	BS62LV8001ECP-55	IS62WV1024BLL-55TLI
1M x 8	2.7 ~ 3.6V	44pin TSOP II	AS6C8008B-45ZIN AS6C8008B-55ZIN		CY62158EV30LL-45ZSXI		R1LV0808ASB-5SI	HM62V8100LTTI-5SL	BS62LV8001ECP-55	IS62WV1024BLL-55TLI
1M x 8	2.7 ~ 5.5V	48ball TFBGA	AS6C8008A-45BIN		CY62158EV30LL-45BVXI	EOL		HM62V8100LBPI-5SL	BS62LV8001ECP-55	IS62WV1024BLL-55MLI
1M x 8	2.7 ~ 3.6V	48ball TFBGA	AS6C8008B-45BIN		CY62158EV30LL-45BVXI	EOL		HM62V8100LBPI-5SL	BS62LV8001FIP-55	IS62WV1024BLL-55MLI
512K x 16	2.7 ~ 5.5V	48ball TFBGA (6 x 8mm)*	AS6C8016-55BIN*	K6F8016U6G-FF55		M5M5W816WG-55HI	R1LV0816ABG-5SI		BS616LV8017ECP55	IS62WV51216BLL-55BLI
512K x 16	2.7 ~ 3.6V	48ball TFBGA (6 x 8mm)**	AS6C8016B-45BIN** AS6C8016B-55BIN**		CY2157EV30LL-45BVXIT					IS62WV51216BLL-55BLI
512K x 16	2.7 ~ 5.5V	44pin TSOP II	AS6C8016 -55ZIN	K6X8016(C/T)3B-UF55	CY62157EV30LL-55ZSXI	M5M5W816TP-55HI	R1LV0816ASA-5SI	HM62165114LTT-5SL	BS616LV8017FCP70	IS62WV51216BLL-55T2LI
512K x 16	3.3V	44pin TSOP II	AS6C8016B-45ZIN AS6C8016B-55ZIN		CY62157EV30LL-45ZSXIT					IS62WV51216BLL-55T2LI
512K x 16	2.7 ~ 5.5V	48pin TSOP I	AS6C8016-55TIN		CY62157EV30LL-45ZXIT					IS62WV51216GBLL-45TLI

\* =one chip select pin:B5

\*\* =two chip select pins:B5 and A6

## 16M LOW POWER

ORG	VCC	PACKAGE	ALLIANCE	CYPRESS	RENESAS	BRILLIANCE (EOL)	ISSI
1M x 16	2.7 ~ 3.6V	48pin TSOP I	AS6C1616-55TIN AS6C1616B-45TIN AS6C1616B-55TIN	CY62167E30LL-55ZXI	R1LV1616RSA-5SI RMLV1616AGSA-5S2	BS6216LV1611TCP55	IS62WV102416DBLL-45TLI IS62WV102416DBLL-55TLI
1M x 16	2.7 ~ 3.6V	48ball TFBGA	AS6C1616B-45BIN AS6C1616B-55BIN	CY62167DV30LL-55BVXIT CY62167EV30LL-70BVI	R1LV1616HBG-4SI R1LV1616HBG-5SI R1LV1616RBG-5SI R1LV1616RBG-5SI RMLV1616AGBG-5S2	BS6216LV1611FCP70	IS62WV102416EBLL-45BLI IS62WV102416EBLL-55BLI
2M x 8	2.7 ~ 3.6V	44pin TSOP II	AS6C1608-45TIN	CY62168EV30LL-55ZXI		BS6216LV1600EIP55	IS62WV20488EBLL-55BLI
2M x 8	2.7 ~ 3.6V	48ball TFBGA	AS6C1608-55BIN	CY62168DV30LL-55BVI			IS62WV20488EBLL-45BLI IS62WV20488EBLL-55BLI IS62WV20488FBLL-45BLI IS62WV20488FBLL-55BLI



# Low Power Asynchronous SRAM Cross Reference

## 32M LOW POWER

ORG	VCC	PACKAGE	ALLIANCE	CYPRESS	RENESAS
2M x 16	2.7 ~ 3.6V	48pin TSOP I	<b>AS6C3216A-55TIN</b>	CY62177EV30LL-55ZXI	R1LV3216RSA-5SI RMLV3216AGSA-5S2
2M x 16	2.7 ~ 3.6V	48ball TFBGA	<b>AS6C3216A-55BIN</b>	CY62177EV30LL-55BAXI	R1LV3216CSA-5SI RMLV3216AGBG-5S2

\*48pin TSOP I (please note: dual chip select 2Mx16 or 4Mx8)

## 64M LOW POWER

ORG	VCC	PACKAGE	ALLIANCE	CYPRESS	RENESAS
4M x 16	2.7V ~ 3.6V	48pin TSOP I	<b>AS6C6416-55TIN</b>		R1WV6416RSA-5S RMWV6416AGSA-5S2
4M x 16	2.7V ~ 3.6V	48ball BGA	<b>AS6C6416-55BIN</b>	CY62187EV30LL-55BAXI	R1WV6416RBG-5S RMWV6416AGBG-5S2

\*48pin TSOP I (please note: dual chip select 4Mx16 or 8Mx8)

# Parallel 5V NOR Flash



DENSITY	BUS WIDTH	VCC	PACKAGES	TEMPERATURE RANGE	SPEED (NS)	ALLIANCE	REMARKS
1Mb	x8	5V	PLCC 32	-40C to 85C	55	AS29CF010-55CCIN	Uniform Sector, Industrial Grade
2Mb	x8 , x16	5V	SOP 44pin	-40C to 125C	55	M29F200FB55M3F2	Bottom Boot, Automotive Grade3
4Mb	x8	5V	PLCC 32	-40C to 85C	55	AS29CF040-55CCIN	Uniform Sector, Industrial Grade
4Mb	x8 , x16	5V	SOP 44pin	-40C to 125C	55	M29F400FB55M3F2	Bottom Boot, Automotive Grade3
4Mb	x8 , x16	5V	TSOP I 48pin	-40C to 85C	55	M29F400FT5AN6E2	Top Boot, Automotive Grade6
4Mb	x8 , x16	5V	TSOP I 48pin	-40C to 125C	55	M29F400FB55N3E2 M29F400FB55N3F2	Bottom Boot, Automotive Grade3
8Mb	x8 , x16	5V	TSOP I 48pin	-40C to 85C	55	AS29CF800T-55TIN	Top Boot, Industrial Grade
8Mb	x8 , x16	5V	TSOP I 48pin	-40C to 85C	55	AS29CF800B-55TIN	Bottom Boot, Industrial Grade
8Mb	x8 , x16	5V	TSOP I 48pin	-40C to 85C	55	M29F800FB5AN6E2 M29F800FB5AN6F2	Bottom Boot, Automotive Grade6
8Mb	x8 , x16	5V	TSOP.I 48pin	-40C to 125C	55	M29F800FT55N3E2	Top Boot, Automotive Grade3
8Mb	x8 , x16	5V	SOP 44pin	-40C to 125C	55	M29F800FB55M3F2	Bottom Boot, Automotive Grade3
16Mb	x8 , x16	5V	TSOP.I 48pin	-40C to 85C	55	AS29CF160B-55TIN	Bottom Boot, Industrial Grade
16Mb	x8 , x16	5V	TSOP.I 48pin	-40C to 85C	55	AS29CF160T-55TIN	Top Boot, Industrial Grade
16Mb	x8 , x16	5V	TSOP.I 48pin	-40C to 85C	55	M29F160FB5AN6F2	Bottom Boot, Automotive Grade6
16Mb	x8 , x16	5V	TSOP.I 48pin	-40C to 125C	55	M29F160FT55N3E2	Top Boot, Automotive Grade3

\*Alliance Memory has collaborated with Micron for exclusive rights to continue to supply M29FX marked parts - SOLD NCNR - immediate delivery

# Parallel 5V NOR Flash.Cross Reference



DENSITY	VCC	PACKAGE	SPEED (NS)	ALLIANCE	Micron	Cypress / Spansion	Macronix
1M	5V	PLCC 32	55	AS29CF010-55CCIN		AM29F010B* (EOL)	
2M	5V	SOP 44pin	55	M29F200FB55M3F2	M29F200F	AM29F200BB* (EOL)	MX29F200CBM* (EOL)
4M	5V	PLCC 32	55	AS29CF040-55CCIN	M29F040	AM29F040B	MX29F040C
4M	5V	SOP 44pin	55	M29F400FB55M3F2	M29F400F	AM29F400BB* (EOL)	MX29F400CBM* (EOL)
4M	5V	TSOP 48pin	55	M29F400FB55N3E2 M29F400FB55N3F2	M29F400F	AM29F400BB* (EOL)	MX29F400CBT
4M	5V	TSOP 48pin	55	M29F400FT5AN6E2	M29F400F	AM29F400BT* (EOL)	MX29F400CTT
8M	5V	TSOP 48pin	55	AS29CF800T-55TIN	M29F800F	AM29F800BT* (EOL)	MX29F800C T/B
8M	5V	TSOP 48pin	55	AS29CF800B-55TIN	M29F800F	AM29F800BB* (EOL)	MX29F800C T/B
8M	5V	TSOP 48pin	55	M29F800FB5AN6E2 M29F800FB5AN6F2	M29F800F	AM29F800BB* (EOL)	MX29F800CBT
8M	5V	TSOP 48pin	55	M29F800FT55N3E2	M29F800F	AM29F800BT* (EOL)	MX29F800CTT
8M	5V	SOP 44pin	55	M29F800FB55M3F2	M29F800F	AM29F800BB* (EOL)	MX29F800CBM* (EOL)
16M	5V	TSOP 48pin	55	AS29CF160T-55TIN	M29F160F	AM29F160DT* (EOL)	
16M	5V	TSOP 48pin	55	AS29CF160B-55TIN	M29F160F	AM29F160DB* (EOL)	
16M	5V	TSOP 48pin	55	M29F160FB5AN6F2	M29F160F	AM29F160DB* (EOL)	
16M	5V	TSOP 48pin	55	M29F160FT55N3E2	M29F160F	AM29F160DT* (EOL)	

# Serial NOR Flash



DENSITY	BUS WIDTH	VCC	PACKAGES	TEMPERATURE RANGE	SPEED (MHz)	ALLIANCE	REMARKS
2Mb	x1	3V	8pin SOIC Narrow body	-40C to 85C	75	<b>M45PE20-VMN6P</b>	PAGE ERASABLE, 2Mb Serial Flash (256K x 8bits, 1024 pages, 4 Sectors), Industrial Grade
8Mb	x1	3V	8pin DFN (6mm x 5mm)	-40C to 85C	75	<b>M45PE80-VMP6TG</b>	PAGE ERASABLE 8Mb Serial Flash (1K x 8bits, 4096 pages, 16 Sectors), Industrial Grade, T&R
16Mb	x1	3V	8pin SOIC Wide body	-40C to 85C	75	<b>M45PE16-VMW6TG</b>	PAGE ERASABLE, 16MB Serial Flash (2K x 8bits, 8192 pages, 32 Sectors), Industrial Grade
32Mb	x1/x2/x4	3V	8PIN DFN (4MM X 3MM)	-40C to 125C	108	<b>N25Q032A13EF4A0F</b>	32Mb Serial NOR Flash, Multiple IO, 64 Sectors, 4KB Sector Erase, Automotive Grade T&R
32Mb	x1/x2/x4	3V	8pin SOIC Narrow body	-40C to 85C	108	<b>N25Q032A13ESC40F</b>	32Mb Serial NOR Flash, Multiple IO, 64 Sectors, 4KB Sector Erase, Industrial Grade, T&R
32Mb	x1/x2/x4	3V	8pin SOIC Narrow body	-40C to 85C	108	<b>N25Q032A13ESC40G</b>	32Mb Serial NOR Flash, Multiple IO, 64 Sectors, 4KB Sector Erase, Industrial Grade, Tube
32Mb	x1/x2/x4	3V	8pin SOIC Narrow body	-40C to 125C	108	<b>N25Q032A13ESCA0F</b>	32Mb Serial NOR Flash, Multiple IO, 64 Sectors, 4KB Sector Erase, Automotive Grade, T&R
32Mb	x1/x2/x4	3V	16pin SOIC Wide body	-40C to 125C	108	<b>N25Q032A13ESFA0F</b>	32Mb Serial NOR Flash, Multiple IO, 64 Sectors, 4KB Sector Erase, Automotive Grade, T&R
64Mb	x1/x2/x4	1.8V	8pin SOIC Wide body	-40C to 125C	108	<b>N25Q064A11ESEA0F</b>	64Mb Serial NOR Flash, Multiple IO, 128 Sectors, 4KB Sector Erase, Automotive Grade T&R
64Mb	x1/x2/x4	3V	8pin DFN (6mm x 5mm)	-40C to 85C	108	<b>N25Q064A13EF640E</b>	64Mb Serial NOR Flash, Multiple IO, 128 Sectors, 4KB Sector Erase, Industrial Grade, Tray
64Mb	x1/x2/x4	3V	8pin DFN (8mm x 6mm)	-40C to 125C	108	<b>N25Q064A13EF8A0E</b>	64Mb Serial NOR Flash, Multiple IO, 128 Sectors, 4KB Sector Erase, Automotive Grade Tray
64Mb	x1/x2/x4	3V	8pin DFN (8mm x 6mm)	-40C to 125C	108	<b>N25Q064A13EF8A0F</b>	64Mb Serial NOR Flash, Multiple IO, 128 Sectors, 4KB Sector Erase, Automotive Grade T&R
64Mb	x1/x2/x4	3V	8pin DFN (8mm x 6mm)	-40C to 85C*	108	<b>N25Q064A13EF8H0E</b>	64Mb Serial NOR Flash, Multiple IO, 128 Sectors, 4KB Sector Erase, Industrial Grade High Reliability, Tray
64Mb	x1/x2/x4	3V	16pin SOIC Wide body	-40C to 125C	108	<b>N25Q064A13ESFA0F</b>	64Mb Serial NOR Flash, Multiple IO, 128 Sectors, 4KB Sector Erase, Automotive Grade T&R
64Mb	x1/x2/x4	3V	8pin SOIC (209mils)	-40C to 85C	104	<b>AS25F364MQ-10SIN</b>	64Mb, 3V Serial NOR Flash, Multiple IO, Default Feature1, Industrial Grade, 8SOIC Wide Body Package
64Mb	x1/x2/x4	3V	8L WSON (6x5mm)	-40C to 85C	104	<b>AS25F364MQ-10WIN</b>	64Mb, 3V Serial NOR Flash, Multiple IO, Default Feature1, Industrial Grade, 8WSON Package

# Serial NOR Flash Cross Reference



DENSITY	VCC	PACKAGES	ALLIANCE	MICRON	WINBOND	ADESTO	SPANSION	MACRONIX	ISSI	GigaDevices
2Mb	3V	8pin SOIC Narrow body	<b>M45PE20-VMN6P</b>			AT45DB021E				
8Mb	3V	8pin DFN (6mm x 5mm)	<b>M45PE80-VMP6TG</b>			AT45DB081E				
16Mb	3V	8pin SOIC Wide body	<b>M45PE16-VMW6TG</b>			AT45DB161E				
32Mb	3V	8pin DFN (4mm x 3mm)	<b>N25Q032A13EF4A0F</b>		W25Q32	AT25DF32/AT25SF32	S25FL032A/P	MX25L32	IS25LP032 / IS25LQ032	GD25Q32
32Mb	3V	8pin SOIC Narrow body	<b>N25Q032A13ESC40F</b>		W25Q32	AT25DF32/AT25SF32	S25FL032A/P	MX25L32	IS25LP032 / IS25LQ032	GD25Q32
32Mb	3V	8pin SOIC Narrow body	<b>N25Q032A13ESC40G</b>		W25Q32	AT25DF32/AT25SF32	S25FL032A/P	MX25L32	IS25LP032 / IS25LQ032	GD25Q32
32Mb	3V	8pin SOIC Narrow body	<b>N25Q032A13ESCA0F</b>		W25Q32	AT25DF32/AT25SF32	S25FL032A/P	MX25L32	IS25LP032 / IS25LQ032	GD25Q32
32Mb	3V	16pin SOIC Wide body	<b>N25Q032A13ESFA0F</b>		W25Q32	AT25DF32/AT25SF32	S25FL032A/P	MX25L32	IS25LP032 / IS25LQ032	GD25Q32
64Mb	1.8V	8pin SOIC Wide body	<b>N25Q064A11ESEA0F</b>		W25Q64	AT25SL64/AT25QL64		MX25U64	IS25WP064	GD25LQ64
64Mb	3V	8pin DFN (6mm x 5mm)	<b>N25Q064A13EF640E</b>		W25Q64	AT25SF64/AT25QF64	S25FL064A/P	MX25L64	IS25LP064	GD25Q64
64Mb	3V	8pin DFN (8mm x 6mm)	<b>N25Q064A13EF8A0E</b>		W25Q64	AT25SF64/AT25QF64	S25FL064A/P	MX25L64	IS25LP064	GD25Q64
64Mb	3V	8pin DFN (8mm x 6mm)	<b>N25Q064A13EF8A0F</b>		W25Q64	AT25SF64/AT25QF64	S25FL064A/P	MX25L64	IS25LP064	GD25Q64
64Mb	3V	8pin DFN (8mm x 6mm)	<b>N25Q064A13EF8H0E</b>		W25Q64	AT25SF64/AT25QF64	S25FL064A/P	MX25L64	IS25LP064	GD25Q64
64Mb	3V	16pin SOIC Wide body	<b>N25Q064A13ESFA0F</b>		W25Q64	AT25SF64/AT25QF64	S25FL064A/P	MX25L64	IS25LP064	GD25Q64
64Mb	3V	8pin SOP Wide Body (209mils)	<b>AS25F364MQ-10SIN</b>	N25Q064A13ESE	W25Q64	AT25QF64	S25FL064	MX25L64	IS25LP064	GD25Q64
64Mb	3V	8L WSON (6x5mm)	<b>AS25F364MQ-10WIN</b>	N25Q064A13EF6	W25Q64	AT25QF64	S25FL064	MX25L64	IS25L064	GD25Q64

# Serial NAND Flash



DENSITY	BUS WIDTH	VCC	SPEED (NS)	PACKAGES	TEMPERTURE RANGE	TYPE	ALLIANCE
1Gb	x1, x2, x4	3V	120 Mhz	LGA 8pin	Industrial (-40°C to 85°C)	4bit ECC, (2048 + 64) bytes × 64 pages × 1024 blocks	AS5F31G04SND-08LIN
2Gb	x1, x2, x4	1.8V	100 Mhz	LGA 8pin	Industrial (-40°C to 85°C)	8bit ECC, (2048 + 128) bytes × 64 pages × 2048 blocks	AS5F12G04SND-10LIN
2Gb	x1, x2, x4	3V	120 Mhz	LGA 8pin	Industrial (-40°C to 85°C)	8bit ECC, (2048 + 128) bytes × 64 pages × 2048 blocks	AS5F32G04SND-08LIN
4Gb	x1, x2, x4	1.8V	100 Mhz	LGA 8pin	Industrial (-40°C to 85°C)	8bit ECC, (2048 + 128) bytes × 64 pages × 4096 blocks	AS5F14G04SND-10LIN
4Gb	x1, x2, x4	3V	120 Mhz	LGA 8pin	Industrial (-40°C to 85°C)	8bit ECC, (2048 + 128) bytes × 64 pages × 4096 blocks	AS5F34G04SND-08LIN
8Gb	x1, x2, x4	1.8V	100 Mhz	LGA 8pin	Industrial (-40°C to 85°C)	8bit ECC, (4096 + 256) bytes × 64 pages × 4096 blocks	AS5F18G04SND-10LIN
8Gb	x1, x2, x4	3V	120 Mhz	LGA 8pin	Industrial (-40°C to 85°C)	8bit ECC, (4096 + 256) bytes × 64 pages × 4096 blocks	AS5F38G04SND-08LIN

## Serial NAND Flash Cross Reference

DENSITY	VCC	SPEED (NS)	ALLIANCE	Toshiba/KIOXIA	Micron	Winbond	Macronix	GigeDevices
1Gb	3.3V	120Mhz	AS5F31G04SND-08LIN	TC58CVG0S3HRAIJ	MT29F1G01ABAFDWB-IT	W25N01GV W25N01KV	MX35LF1GE4AB	GD5F1GQ4UB/C/E/Fxxx GD5F1GQ5UExxG/H
2Gb	1.8V	100Mhz	AS5F12G04SND-10LIN	TC58CYG1S3HRAIJ	MT29F2G01ABBGDWB-IT:G	W25N02JW W25N02KV	MX35UF2G14AC	GD5F2GQ4Rx GD5F2GM7RExxG GD5F2GQ5RExxG/H
2Gb	3.3V	120Mhz	AS5F32G04SND-08LIN	TC58CVG1S3HRAIJ	MT29F2G01ABAGDWB-IT	W25M02GV W25N02KW	MX35LF2G14AC	GD5F2GQ4Ux GD5F2GM7UExxG GD5F2GQ5UExxG/H
4Gb	1.8V	100Mhz	AS5F14G04SND-10LIN	TC58CYG2S0HRAIJ	MT29F4G01ABBFDWB-IT	W25N04KW	MX35UF4G24AD MX35UF4GE4AD	GD5F4GQ6Rx GD5F4GM8RExxG GD5F4GQ6RExxG/H
4Gb	3.3V	120Mhz	AS5F34G04SND-08LIN	TC58CVG2S0HRAIJ	MT29F4G01ABAFDWB	W25N04KV	MX35LF4G24AD MX35LF4GE4AD	GD5F4GQ6Ux GD5F4GM8UExxG GD5F4GQ6UExxG/H
8Gb	1.8V	100Mhz	AS5F18G04SND-10LIN	TH58CYG3S0HRAIJ				
8Gb	3.3V	120Mhz	AS5F38G04SND-08LIN	TH58CVG3S0HRAIJ				

# eMMC



DENSITY	VCC	PACKAGES	CLOCK FREQUENCY	Flash Voltage	TEMPERATURE OPTIONS	Alliance Memory
4GB	2.7V~3.6V	153b FBGA	200 MHz	3.3V	Industrial(-40°C to 85°C)	<b>ASFC4G31M-51BIN</b>
8GB	1.1,1.8V	153b FBGA	200 MHz	3.3V	Industrial(-40°C to 85°C)	<b>ASFC8G31M-51BIN</b>

# eMMC Cross Reference

DENSITY	ALLIANCE	MICRON	SAMSUNG	HYNIX	Macronix	Kingston	KIOXIA	Sky-High	ISSI
4GB	<b>ASFC4G31M-51BIN</b>	MTFC4Gxxx		H26M412xxx	MX52LM04	EMMC04G	THGBMNG5D	S40FC004C	IS21ES04G
8GB	<b>ASFC8G31M-51BIN</b>	MTFC8Gxxx	KLM8G1Gxxx		MX52LM08	EMMC08G	THGBMNG5C	S40FC008C	IS21ES08G

# pSRAM PSEUDO SRAM



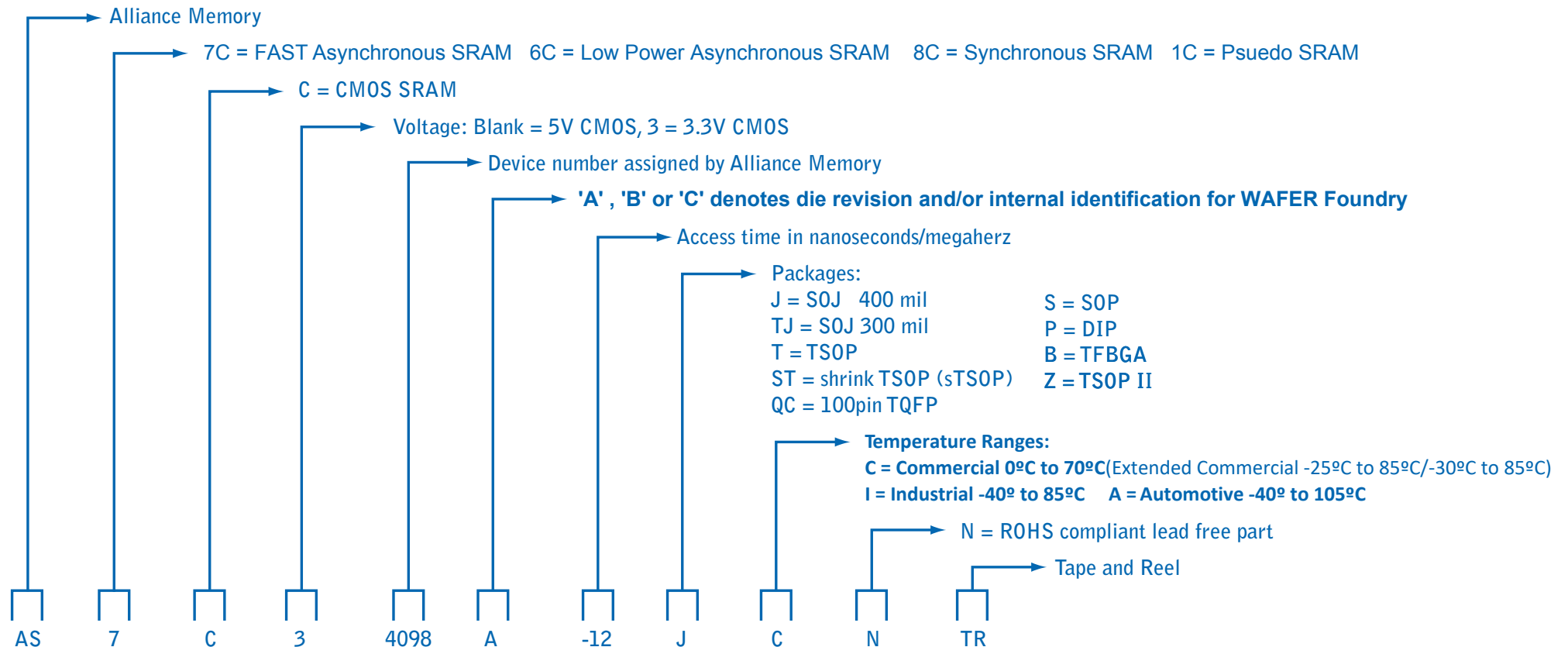
DENSITY	ORG	VCC	PACKAGE	Temperature	SPEED	ALLIANCE
8Mb	512K x 16	1.7v ~1.95v (1.8v)	48FPBGA (6.0x7.0x1.0mm)	Industrial (-30°C ~+85°C)	70ns	<b>AS1C512K16PL-70BIN</b>
8Mb	512K x 16	2.6v to 3.3v (3V)	48FPBGA (6.0x7.0x1.0mm)	Industrial (-40°C~ +85°C)	70ns	<b>AS1C512K16P-70BIN</b>
16Mb	1M X16	1.7v to 1.95v(1.8v)	48FPBGA (6.0x7.0x1.0mm)	Industrial (-40°C~ +85°C)	70ns	<b>AS1C1M16PL-70BIN</b>
16Mb	1M X16	2.6v to 3.3v (3V)	48FPBGA (6.0x7.0x1.0mm)	Industrial (-40°C~ +85°C)	70ns	<b>AS1C1M16P-70BIN</b>
32Mb	2M X16	2.6v to 3.3v (3V)	48FPBGA (6.0x7.0x1.0mm)	Industrial (-40°C~ +85°C)	70ns	<b>AS1C2M16P-70BIN</b>
64Mb	4M X16	1.7v to 1.95v(1.8v)	49FBGA (4.0x4.0x0.8mm)	Industrial (-30°C ~+85°C)	70ns	<b>AS1C4M16PL-70BIN</b>
128Mb (*2-stacked die)	8M X16	1.7v to 1.95v(1.8v)	49FBGA (4.0x4.0x0.8mm)	Industrial (-30°C ~+85°C)	70ns	<b>AS1C8M16PL-70BIN</b>

# pSRAM Cross Reference

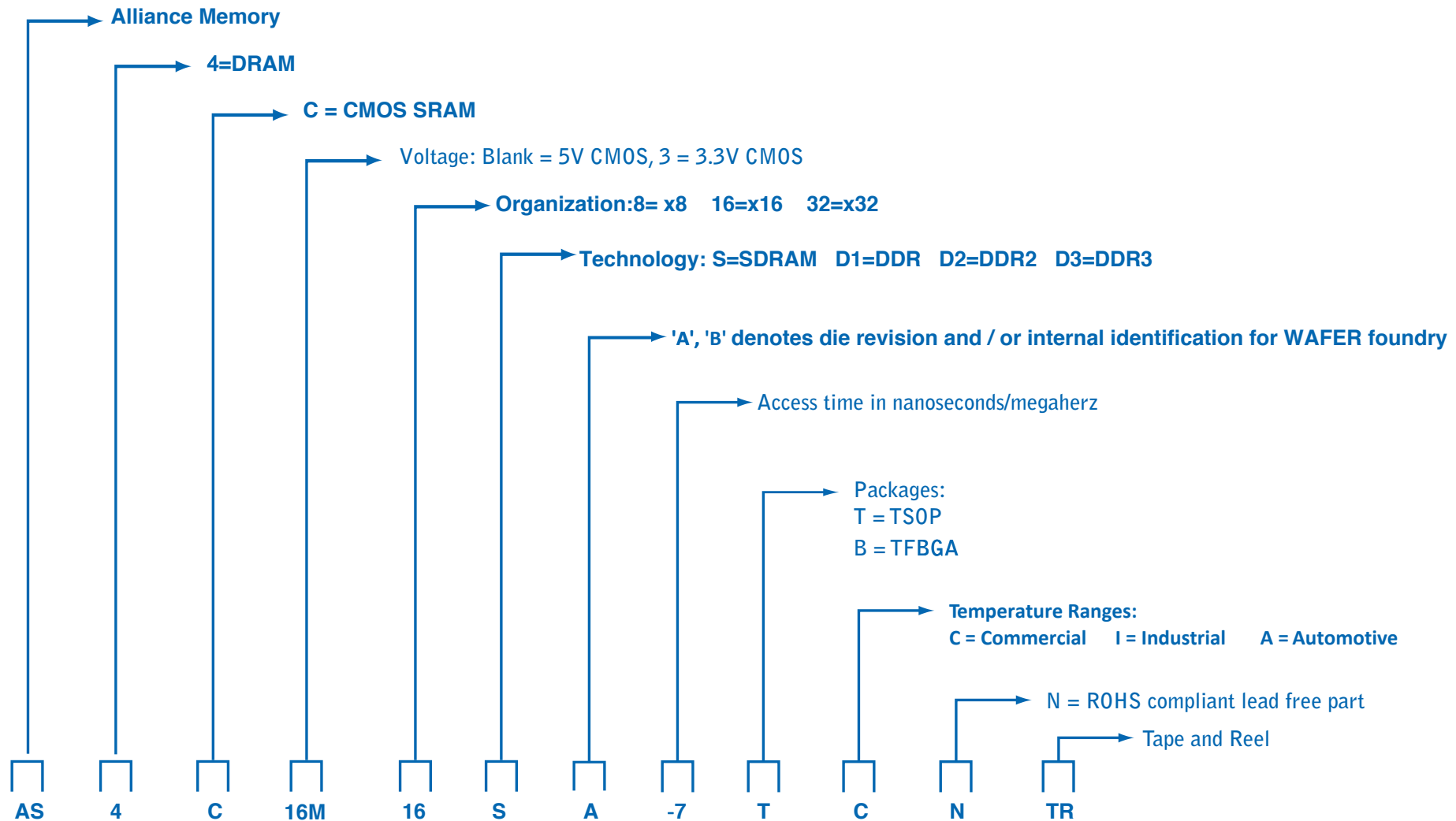
ORG	DENSITY	PACKAGE	COMMENTS/ PREV REV	ALLIANCE	JSC/JEJU	ISSI	FIDELIX	AP MEMORY
8Mb	512K x 16	48 FPBGA	page mode & Non-DPD	<b>AS1C512K16PL-70BIN</b>	EM784SP16BPP-70LF	IS66WV51216EALL-70BLI		
8Mb	512K x 16	48 FPBGA	Non-page mode & Non-DPD	<b>AS1C512K16P-70BIN</b>	JS784SU16BSP-70LFI	IS66WV51216EBLL-70BLI	FMP0817CAx	
16Mb	1M X16	48 FPBGA	Non-page mode & Non-DPD	<b>AS1C1M16PL-70BIN</b>	EM7164SP16CSP-70LFI	IS66WVE1M16EALL-70BLI	FMP1617CCx	
16Mb	1M X16	48 FPBGA	Non-page mode & Non-DPD	<b>AS1C1M16P-70BIN</b>	JS164SU16BSP-70LFI	IS66WVE1M16EBLL-70BLI	FMP1617CAx	
32Mb	2M X16	48 FPBGA	Non-page mode & Non-DPD	<b>AS1C2M16P-70BIN</b>	JS7324SU16BSP-70LFI	IS66WVE2M16EBLL-70BLI	FMP3217CAx	
64Mb	4M X16	49 FBGA	DPD mode	<b>AS1C4M16PL-70BIN</b>	EMC643SP16CK-DT-70LF			
128Mb (*2-stacked die)	8M X16	49 FBGA	DPD mode	<b>AS1C8M16PL-70BIN</b>	JSC283SP16ATDT-70LF			APS128XX



# ALLIANCE PART NUMBERING SYSTEM-SRAM



# ALLIANCE PART NUMBERING SYSTEM-DRAM



# Alliance Packaging Quantities

## FAST SRAM ORDER QTY



Part #	Package Suffix	Package	Box Qty	Quantity Per Tray/Tube	Reel size	Tape Width (mm)	Tape Pitch (mm)
164A, 256A, 3256A	JxN	28 SOJ - 300mil	2500	25/Tube	1000	24	12
256B	JIN	28 SOJ - 300mil	1080	27/Tube	1000	24	12
3256B	JIN	28 SOJ - 300mil	1352	26/Tube	1000	24	12
256A, 3256A	TxN	28 TSOP I (8x13.4)	2340	234/Tray	1000	24	12
1025B, 31025B, 1024B, 31024B	TJCN	32.3 SOJ - 300mil	2200	22/Tube	1000	32	12
1024C	TJIN	32.3 SOJ - 300mil	920	23/Tube	1000	32	12
31025C	TJIN	32.3 SOJ - 300mil	805	23/Tube	1000	32	12
1025B, 31025B, 1024B, 31024B	JCN	32.4 SOJ - 400mil	2100	21/Tube	1000	32	16
1024C, 1025C, 31025C	JIN	32.4 SOJ - 400mil	805	23/Tube	1000	32	16
513B, 3513B, 1026B, 31026B	JCN	44 SOJ - 400mil - 1 Meg	1600	16/Tube	500	44	16
1026C, 31026C	JIN	44 SOJ - 400mil - 1 Meg	560	16/Tube	500	44	16
1024B, 31024B	TCN	32 TSOP I (8x20)	1560	156/Tray	1000	32	12
31025C	TIN	32 TSOP I (8x20)	805	23/Tube	1000	32	12
513B, 3513B, 1026B, 31026B	TCN	44 TSOP II - 400mil - 1 Meg	1350	135/Tray	1000	32	16
1026C, 31026C	TIN	44 TSOP II - 400mil - 1 Meg	1352	26/Tube	1500	32	16
31026C	BIN	48ball FBGA	3600	360/Tray	2000	44	16
4096A, 34096A, 4098A, 34098A	TxN	44 TSOP II - 400mil - 4 Meg	1350	135/Tray	1000	32	16
4096A, 34096A	JxN	36 SOJ - 400mil	1900	19/Tube	500	44	16
4098A, 34098A	JxN	44 SOJ - 400mil - 4 Meg	1600	16/Tube	500	44	16
34098A	B	48ball BGA	2200	480/Tray			
38096A, 38098A	TIN	44 TSOP II	1350	135/Tray	1000	44	16
38096A, 38098A	B	48ball BGA	4800	480/Tray	2000	44	16
316096A, 316098A	TIN	48 TSOP I	1350	135/Tray	1000	44	16
316098A	B	48ball BGA	4800	480/Tray	2000	16	16
325632,351232	BIN	90ball TFBGA	2400	240/Tray	2000		

# Alliance Packaging Quantities

## LOW POWER SRAM ORDER QTY



Part #	Package Suffix	Package	Box Qty	Quantity Per Tray/Tube	Reel size	Tape Width (mm)	Tape Pitch (mm)
6264/62256	S	28pin 330mil SOP	2500	25/Tube	1000	24	16
6264/62256	P	28pin 600mil DIP	600	15S/Tube	NA	NA	NA
6264/62256	ST	28pin STSOP (8x13.4)	2340	234/Tray	1500	24	12
1008/2008/4008	P	32pin 600mil DIP	520	13S/Tube	NA	NA	NA
1008/2008/4008	S	32pin 450mil SOP	2200	22/Tube	1000	32	16
1008/2008/4008	T	32pin TSOP I (8x20)	1560	156/Tray	1500	32	12
1008/2008/4008	ST	32pin STSOP (8x13.4)	2340	234/Tray	1500	24	12
1016/2016/4016/8008/8016	Z	44pin TSOP II 400mil	1350	135/Tray	1000	32	12
1616/6416	T	48pin TSOP I	960	96/Tray	1500		
1008/2008/4008/8008/1016/ 1616/2016/4016/8016/1616/3216	B	36B/48B TFBGA (6x8)	4800 or 3000	480/Tray Or 300/Tray	2000	16	12
4008	Z	32pin TSOP II	1170	117/Tray	1000	32	16

# Alliance Packaging Quantities



## DRAM ORDER QTY

Part #	Package	Box Qty	Quantity Tray/Reel	Reel size
<b>SDRAM</b>				
AS4C1M16S	50pin TSOP II	1170	117/Tray	1000
AS4C4M16SA/AS4C32M8SA/AS4C64M4SA	54pin TSOP II	1080	108/Tray	1000
AS4C4M16SA	54ball BGA	3480	348/Tray	2500
AS4C4M16SA-7B2CN	60ball FBGA	2860	286/Tray	2000
AS4C2M32SA/AS4C4M32SA/AS4C8M32S	86pin TSOP II	1080	108/Tray	1000
AS4C2M32S/AS4C4M32S	90ball BGA	1900	190/Tray	2000
AS4C8M16SA	54pin TSOP II	1080	108/Tray	1000
AS4C8M16SA	54ball TFBGA	3480	348/Tray	2500
AS4C16M16SA/AS4C16M16SB	54pin TSOP II	1080	108/Tray	1000
AS4C16M16SA	54ball FBGA	3480	348/Tray	2500
AS4C8M32SA	90 ball LFBGA	1900	190/Tray	2000
AS4C32M16SB	54pin TSOP II	1080	108/Tray	1000
AS4C32M16SB	54ball FBGA	3480	348/Tray	1000
MT48LC32M16A2P-75*	54pin TSOP II	1000	108/Tray	1000
MT48LC64M8A2P-75*	54pin TSOP II	1000	108/Tray	1000

\*Alliance Memory has collaborated with Micron for exclusive rights to continue to provide these Micron marked parts

# Alliance Packaging Quantities



## DRAM ORDER QTY

Part #	Package	Box Qty	Quantity Tray/Reel	Reel size
<b>DDR1</b>				
AS4C4M16D1A/AS4C8M16D1/AS4C8M16D1A/AS4C16M16D1/AS4C16M16D1A/AS4C32M8D1/ AS4C32M16D1/AS4C32M16D1A/AS4C64M8D1/AS4C64M16D1/AS4C64M16D1/AS4C128M8D1	66pin TSOP II	1080	108/Tray	1000
AS4C8M16D1/AS4C16M16D1/AS4C32M16D1/AS4C64M8D1A	60ball BGA	2400	240/Tray	2500
AS4C2M32D1A/AS4C4M32D1A	144ball FBGA	1890	189/Tray	1500
<b>DDR2</b>				
AS4C16M16D2/AS4C32M16D2A/AS4C64M16D2A/AS4C128M16D2A	84ball FBGA	2090	209/Tray	2500
AS4C64M8D2/AS4C128MD2A/AS4C256M8D2A	60ball FBGA	2640	209/Tray	2500
AS4C128M8D2B	60ball FBGA	2000	300/Tray	2500
AS4C128M16D2	84ball FBGA	1620	209/Tray	2500
AS4C256M8D2	60ball FBGA	1360	136/Tray	2500
<b>DDR3</b>				
AS4C32M16D3-12BxN/AS4C32M16D3L-12BxN	96ball FBGA	1900	209/Tray	1500
AS4C64M8D3-12BxN/AS4C64M8D3L-12BxN	78ball FBGA	2420	242/Tray	2500
AS4C128M8D3B/AS4C128M8D3LB	78ball FBGA	2420	242/Tray	1000
AS4C64M16D3B	96ball FBGA	1900	209/Tray	2000
AS4C64M16D3LB	96ball FBGA	1900	190/Tray	2000
AS4C128M16D3C	96ball FBGA	2090	209/Tray	1500
AS4C128M16D3LC	96ball FBGA	1980	190/Tray	2000
AS4C256M8D3LC	78ball FBGA	2420	242/Tray	2500
AS4C256M16D3C	96ball FBGA	1900	190/Tray	1000
AS4C256M16D3LC	96ball FBGA	1800	180/Tray	2000
AS4C512M8D3LC/AS4C1GD3LA	78ball FBGA	2200	220/Tray	1000
AS4C256M32D3/AS4C256M32D3L	136ball FBGA	2200	220/Tray	1000
AS4C512M16D3L/AS4C1G8MD3L/MT41K512M16HA-107:A*/MT41512M16HA-125:A*(*=Micron parts)	96ball FBGA	1020	170/Tray	1000
AS4C512M16D3LA/AS4C512M16D3LB	96ball FBGA	1800	180/Tray	2000

# Alliance Packaging Quantities

## DRAM ORDER QTY



Part #	Package	Box Qty	Quantity Tray/Reel	Reel size
<b>MOBILE SDRAM</b>				
AS4C8M16MSA/AS4C16M16MSA/AS4C32M16MSA	54-ball FBGA	3190	319/Tray	1000
AS4C4M32MSA/AS4C8M32MSA/AS4C16M32MSA	90-ball FBGA	1900	190/Tray	1500
<b>MOBILE DDR1</b>				
AS4C16M16MD1	60-ball FPBGA	1600	160/Tray	1000
AS4C32M16MD1A	60-ball FPBGA	1600	160/Tray	1000
AS4C16M32MD1	90-ball FPBGA	2400	240/Tray	1000
AS4C64M16MD1A	60-ball FPBGA	1600	160/Tray	1000
AS4C32M32MD1A	90-ball FPBGA	2400	240/Tray	1000
AS4C64M32MD1	90-ball FPBGA	2400	240/Tray	1000
<b>MOBILE DDR2</b>				
AS4C64M16MD2A-25BIN/AS4C32M32MD2A-25BIN	134ball FBGA (10 x 11.5 x 1.0)	1280	128/Tray	1000
AS4C128M16MD2A-25BIN	134ball FBGA (10 x 11.5 x 1.0)	1280	171/Tray	1000
AS4C128M32MD2-18/25BIN/	134ball FBGA (11.5 x 11.5 x 1.0)	1680	168/Tray	1000
AS4C8M32MD2A-25BCN	134ball FBGA (11.5 x 11.5 x 1.0)	1710	171/Tray	1000
AS4C8M32MD2A-25PBCN	168ball FBGA (12 x 12 x 0.9)	1680	168/Tray	Do Not Offer
AS4C64M32MD2A-25BIN	134ball FBGA (12 x 12 x 0.9)	1710	171/Tray	2000

# Contact Information



## ◆ US Headquarter

Alliance Memory, Inc.  
12815 NE 124th St, Suite #D,  
Kirkland, WA 98034  
- Phone: +1(425) 898 4456  
- Fax: +1(425) 898 8628

## ◆ CANADA Sales Office

Tom Gargan  
- Phone: +1(514) 442-0677  
- Email: tom@alliancememory.com

## ◆ EMEA Headquarter

Alliance Memory, Inc.  
7 Pauls Field  
Eversley, Hampshire, RG27, ONE,  
United Kingdom  
- Phone: +44(0) 787-634-4055  
- Email: sue@alliancememory.com

## ◆ Asia Headquarter

Alliance Memory, Inc.  
NO.22, Xingde Road, Dayuan DIST,  
Taoyuan City 337002, Taiwan  
- Phone: +886 3461 4646  
- Fax: +886 3461 0697  
- Email: judy@alliancememory.com

## ◆ CHINA Sales Office

Room1108, 4# Building  
Excellence Century Center  
Fuhua 3 Road, Futian District 518000  
Shenzhen, Guangdong, China  
- Phone: +86(189) 2600 6867  
- Email: mars@alliancememory.com

## ◆ JAPAN Sales Office

3-7-10, Sakurajousui, Setagaya-Ku  
Tokyo, Japan 156-0045  
- Phone: +81(90) 3963 0869  
- Email: ted@alliancememory.com

## ◆ INDIA Sales Office

Bangalore – INDIA  
Ramesh Varadharajan  
- Phone: +91 96065 00288  
- Email: ram@alliancememory.com

## ◆ Romania Sales Office

Viorel Toadere  
- Phone: +40(722) 435 465  
- Email: viorel@alliancememory.com

## ◆ NORTH AMERICA REP

### Salesmasters

States covered  
OH, KY, IN, MI, WPA, AL, TN, FL, SC, GA

### HHP

State covered  
Florida

### IRI

States covered  
IL, WI, MN, KS, NE, MO, IA, ND, SD



For a complete list of our distributors and REP Partners by country and region, please refer to our website, [www.alliancememory.com](http://www.alliancememory.com)



Alliance Memory Inc.  
@alliancememory



Alliance-Memory-Inc