

AS4C256M16D3B-12BIN vs AS4C256M16D3C-12BIN Comparison

(4Gb – 256M x 16, DDR3 rev.B vs rev.C Comparison)

Part Number & result Parameter	AS4C256M16D3B-12BIN	AS4C256M16D3C-12BIN	Comparison
Fab Process Technology	30nm	25nm	Different
Die Revision	Rev.B	Rev.C	Different
Density	4Gb (256M x 16)	4Gb (256M x 16)	Same
Memory Organization	32M words, x16bits, x8 banks	32M words, x16bits, x8 banks	Same
Operating Power Supply	VDD/VDDQ = 1.5V +/-0.075V	VDD/VDDQ = 1.5V +/-0.075V	Same
Operating Temperature	Industrial (-40°C ≤ Tc ≤ 95°C)	Industrial (-40°C ≤ Tc ≤ 95°C)	Same
Clock Frequency	800MHz	800MHz	Same
Data Rate (MT/s)	1600	1600	Same
Max. Frequency Available	800MHz	1066MHz	MPN -93BCN
CAS Latency	11	11	Same
tRCD & tRP (ns)	13.75	13.75	Same
Input Output Capacitance	2.3pf (Max)	2.3pf (Max)	Same
AC/DC Characteristics	Meet JEDEC	Meet JEDEC	Same
IDD0 (mA)	55	57	Comparable
IDD1 (mA)	75	81	Comparable
IDD2P0 (mA)	12	8	Comparable
IDD2P1 (mA)	18	14	Comparable
IDD2N (mA)	25	24	Comparable
IDD2Q (mA)	25	24	Comparable
IDD3P (mA)	22	26	Comparable
IDD3N (mA)	32	38	Comparable
IDD4R (mA)	135	155	Comparable
IDD4W (mA)	150	155	Comparable
IDD5B (mA)	160	235	Rev.B better
IDD6 (mA)	12	12	Comparable
IDD6ET (mA)	17	16	Comparable
IDD7 (mA)	195	190	Comparable
IDD8 (mA)	12	10	Comparable
96ball FBGA Package Dimensions	Package Dimensions: 9 x 13.5 x 1.2mm Ball Matrix: 6.4 x 12 x 0.8mm	Package Dimensions: 7.5x13.5x1.2mm Ball Matrix: 6.4 x 12 x 0.8mm	Rev.C smaller but Compatible
Package Material	Pb and Halogen Free	Pb and Halogen Free	Same