

AS4C256M16D3-12BCN vs AS4C256M16D3C-12BCN Comparison

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

Part Number & result Parameter	AS4C256M16D3-12BCN	AS4C256M16D3C-12BCN	Comparison
Fab Process Technology	30nm	25nm	Different
Die Revision	Rev.*	Rev.C	
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	Commercial (0°C ≤ Tc ≤ 95°C)	Commercial (0°C ≤ Tc ≤ 95°C)	Same
Clock Frequency	800MHz	800MHz	Same
Data Rate (MT/s)	1600	1600	Same
CAS Latency	11	11	Same
tRCD & tRP (ns)	13.75	13.75	Same
AC/DC Characteristics	Meet JEDEC	Meet JEDEC	
IDD0 (mA)	85	57	Rev.C better
IDD1 (mA)	110	81	Rev.C better
IDD2P0 (mA)	18	8	Rev.C better
IDD2P1 (mA)	37	14	Rev.C better
IDD2N (mA)	50	24	Rev.C better
IDD2Q (mA)	50	24	Rev.C better
IDD3P (mA)	45	26	Rev.C better
IDD3N (mA)	70	38	Rev.C better
IDD4R (mA)	280	155	Rev.C better
IDD4W (mA)	225	155	Rev.C better
IDD5B (mA)	220	235	Comparable
IDD6 (mA)	22	12	Rev.C better
IDD6ET (mA)	28	16	Rev.C better
IDD7 (mA)	300	190	Rev.C better
IDD8 (mA)	20	10	Rev.C better
96ball FBGA Package Dimensions	Package Dimensions: 9 x 13.0 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