12815 NE 124th St STE#D, Kirkland, WA-98034

AS4C256M16D3C-93BCN vs NT5CB256M16ER-FLI Comparison

Part Number & result / Parameter	AS4C256M16D3C-93BCN	NT5CB256M16ER-FLI	Comparison Result
Product Description	DDR3 SDRAM	DDR3 SDRAM	Same
Capacity	4Gb (256M x 16)	4Gb (256M x 16)	Same
Memory Organization	32Mwords, x16bits, x8 banks	32Mwords, x16bits, x8 banks	Same
Operating Power Supply	V_{DD} & V_{DDQ} = 1.5V (+/-0.075V)	V_{DD} & V_{DDQ} = 1.5V (+/-0.075V)	Same
Operating Temperature	Commercial (0°C ≤ Tc ≤ 95°C)	Industrial (-40°C ≤ Tc ≤ 95°C)	Different
Clock Frequency (Max)	1066MHz	1066MHz	Same
Data Rate (Max)	2133MT/s	2133MT/s	Same
CAS Latency	14	14	Same
tRCD & tRP (ns)	13.09	13.09	Same
Average Refresh Period tREFI	7.8us (<85C), 3.9us at 85C~95C	7.8us (<85C), 3.9us at 85C~95C	Same
I/O Capacitance	2.1pf	2.1pf	Same
Pin to Pin Compatible	Pin to Pin Compatible		Same
AC/DC Characteristics	Same	Same	Meet JEDEC
IDD Specification			
I_{DD0} (mA)	61	32	Nanya Better
I_{DD1} (mA)	87	47	Nanya Better
I_{DD2P0} (mA)	8	12	Alliance better
I_{DD2P1} (mA)	18	12	Nanya Better
I_{DD2N} (mA)	28	17	Nanya Better
I_{DD2Q} (mA)	28	15	Nanya Better
I_{DD3P} (mA)	30	17	Nanya Better
I_{DD3N} (mA)	42	25	Nanya Better
I_{DD4R} (mA)	175	130	Nanya Better
I_{DD4W} (mA)	175	140	Nanya Better
I_{DD5B} (mA)	285	156	Nanya Better
I_{DD6} (mA)	12	15	Alliance better
I_{DD7} (mA)	210	165	Nanya Better
I_{DD8} (mA)	10	14	Alliance better
Package 96b FBGA	(7.5mm x 13.5mm x 1.2mm) Ball Array (mm): 12x 6.4 x 0.8	(8mm x 13mm x 1.2mm) Ball Array (mm): 12x 6.4 x 0.8	Comparable Ball Matrix Same
Package Material	Pb and Halogen Free	Pb and Halogen Free	Same