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

AS4C1G8D4B-62BCN vs AS4C1G8D4D-62BCN Comparison

Part Number & result / Parameter	AS4C1G8D4B-62BCN	AS4C1G8D4D-62BCN	Comparison
Product Description	DDR4 SDRAM	DDR4 SDRAM	Same
Die Rev & Tech Node	Rev.B & 1-alpha nm	Rev.D & 1Bnm	Different IP
Capacity	8Gb (1G x 8)	8Gb (1G x 8)	Same
Memory Organization	64Meg, x8bits, x16 banks	64Meg, x8bits, x16 banks	Same
Operating Power Supply	V_{DD} & V_{DDQ} = 1.2V(+/- 60mV)	V_{DD} & V_{DDQ} = 1.2V (+/- 60mV)	Same
	Vpp = 2.5V (-125mV,+250mV)	Vpp = 2.5V (-125mV,+250mV)	Same
Operating Temperature	Commercial(0°C ≤Tc ≤ +95°C)	Commercial(0°C ≤Tc ≤ +95°C)	Same
Max Clock Frequency	1600 MHz	1600 MHz	Same
Max Data Rate	3200 Mbps	3200 Mbps	
CL/nRCD/nRP	22/22/22	22/22/22	Same
tAA, tRCD & tRP (ns)	13.75	13.75	Same
Average Refresh cycles	7.8 µs at 0°C ≤ Tc ≤ +85°C 3.9 µs at +85°C < Tc ≤ +95°C	7.8 µs at 0°C ≤ Tc ≤ +85°C 3.9 µs at +85°C < Tc ≤ +95°C	Same
I/O Capacitance	CIO = 1.0pF Max	CIO = 1.0pF Max	Same
Pin to Pin Compatible	Compatible		Same
AC/DC Characteristics	Comparable		Meet JEDEC
IDD Specification			
IDD Spec conditions	0C to 95C	0C to 95C	
I_{DD0} (mA) , Ipp0 (mA)	48 , 4	95 , 4.7	Rev.B better
I_{DD1} (mA)	55	108	Rev.B better
I_{DD2N} (mA)	38	79	Rev.B better
I_{DD2NT} (mA)	41	90	Rev.B better
I_{DD2P} (mA)	30	61	Rev.B better
I_{DD2Q} (mA)	34	63	Rev.B better
I_{DD3N} (mA)	43	100	Rev.B better
I_{DD3P} (mA)	33	91	Rev.B better
I_{DD4R} (mA)	123	222	Rev.B better
I_{DD4W} (mA)	106	246	Rev.B better
I_{DD6N} (mA)	32	43	Rev.B better
I_{DD6R} (mA)	19	36	Rev.B better
I_{DD6E} (mA)	52	72	Rev.B better
I_{DD7} (mA)	155	231	Rev.B better
Package 78b FBGA	(7.5mm x 11mm x 1.2mm)	(7.5mm x 10.5mm x 1.2mm)	Comparable
Solder Ball Material	SACQ(92.45%Sn,4%Ag,0.5%Cu,3% Bi,0.05%Ni)	SAC302(96.8%Sn,3%Ag,0.2%Cu)	Different
Package Material	Pb and Halogen Free	Pb and Halogen Free	Same