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

MT40A2G8VA-062EITB vs AS4C2G8D4A-62BCN Comparison

Part Number & result / Parameter	MT40A2G8VA-062EITB	AS4C2G8D4A-62BCN	Comparison Result
Product Description	DDR4 SDRAM	DDR4 SDRAM	Same
Density	16Gb	16Gb	Same
Memory Organization	2G x 8bits	2G x 8bits	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	Industrial (-40°C ≤ Tc ≤ +95°C)	Commercial (0°C ≤ Tc ≤ +95°C)	Different
Max Clock Frequency	1600 MHz	1600 MHz	Same
Max Data Rate	3200 Mbps	3200 Mbps	Same
CAS Latency	22	22	Same
tAA/tRCD/tRP (ns)	13.75	13.75	Same
Temperature controlled Refresh time	8192 Cycles at Tc range 64ms at 0C ~ 85C 32ms at 85C ~ 95C	8192 Cycles at Tc range 64ms at 0C ~ 85C 32ms at 85C ~ 95C	Same
I/O Capacitance	CIO = 1.4pF Max	CIO = 0.78pF Max	Same
Pin to Pin Compatible	Pin to Pin Compatible		
AC/DC Characteristics	Same		Meet JEDEC
I_{DD0} (mA) , Ipp0 (mA)	63, 4	60, 3	Alliance better
I_{DD1} (mA)	74	71	Alliance better
I_{DD2N} (mA)	52	45	Alliance better
I_{DD2NT} (mA)	56	51	Alliance better
I_{DD2P} (mA)	43	38	Alliance better
I_{DD2Q} (mA)	47	42	Alliance better
I_{DD3N} (mA)	80	61	Alliance better
I_{DD3P} (mA)	69	50	Alliance better
I_{DD4R} (mA)	202	140	Alliance better
I_{DD4W} (mA)	183	112	Alliance better
I_{DD6N} (mA)	74	53	Alliance better
I_{DD6R} (mA)	26	20	Alliance better
I_{DD6E} (mA)	129	90	Alliance better
I_{DD7} (mA)	196	167	Alliance better
Package 78b FBGA	10 x 11 x 1.2mm	7.5 x 11 x 1.2mm	Alliance smaller
Solder Ball material Composition	**SAC302** (96.8% Sn, 3% Ag, 0.2% Cu).	**SACQ** (92.45% Sn, 4% Ag, 0.5% Cu, 3% Bi, 0.05% Ni).	Different.
Package Material	Pb and Halogen Free	Pb and Halogen Free	Same