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

AS6C1616-70BIN, AS6C1616-55BIN & AS6C1616A-55BIN Comparison

Part Number & result / Parameter	AS6C1616-70BIN	AS6C1616-55BIN	AS6C1616A-55BIN	Comments
ProductDescription	**Low Power ASRAM**	**Low Power ASRAM**	**Low Power ASRAM rev.A**	
Capacity	16Mb	16Mb	16Mb	Same
Memory Organization	1024K x 16bits	1024K x 16bits	1024K x 16bits	Same
Oper. Power Supply	V_{CC} =2.7V ~ 3.6V	V_{CC} =2.7V ~ 3.6V	V_{CC} =2.7V ~ 3.6V	Same
Operating Temperature	Industrial (-40°C to 85°C)	Industrial (-40°C to 85°C)	Industrial (-40°C to 85°C)	Same
I/O Capacitance	CIO: 8pf (Max.)	CIO: 8pf (Max.)	CIO: 10pf (Max.)	Comparable
Read Cycle Time (tRC)	70ns (Min.)	55ns (Min.)	55ns (Min.)	Same
Write Cycle Time (tWC)	70ns (Min.)	55ns (Min.)	55ns (Min.)	Same
AddrAccessTime(tAA)	70ns (Max.)	55ns (Max.)	55ns (Max.)	Same
OE Access Time (tOE)	35ns (Max.)	30ns (Max.)	35ns (Max.)	If Design is 70ns all parts are compatible
V_{OH}(V) @ -1.0mA	2.2 (Min.)	2.2 (Min.)	2.4 (Min.)	Comparable
V_{OL} (V) @ 2mA	0.4 (Max.)	0.4 (Max.)	0.4 (Max.)	Same
V_{IH} (V)	2.2 (Min.)	2.2 (Min.)	2.2 (Min.)	Same
V_{IL} (V)	0.6 (Max.)	0.6 (Max.)	0.6 (Max.)	Same
I_{LI} / I_{LO}(uA)	1 (Max.)	1 (Max.)	1 (Max.)	Same
Operating Supply Current	**I_{CC}** = 45mA (Cycle time=70ns)	**I_{CC}** = 60mA (Cycle time=55ns)	**I_{CC2}** = 70mA (Cycletime= 55ns)	If Design is 70ns all parts are comparable
Oper. Current (Cycle Time=1us)	**I_{CC1}** = 16mA (Max.)	**I_{CC1}** = 16mA (Max.)	I_{CC1} = 8mA (Max.)	Rev A, better part
Standby Current I_{SB1}	40uA (Max.)	40uA (Max.)	30uA (Max.)	Comparable
V_{DR} (Data Retention Voltage)	1.2 (Min.)	1.2 (Min.)	1.5V (Min.)	Rev.A higher
I_{DR} (Data Retention Current)	40uA (Max)	40uA (Max)	8uA (Max)	Rev A, better part
Package TFBGA Outer Dimensions	6mm x 8mm	6mm x 8mm	8mm x 10mm	Rev.A Outer Dimensions is bigger
Ball pitch and array	0.75mm, 3.75 x 5.25mm	0.75mm, 3.75 x 5.25mm	0.75mm, 3.75 x 5.25mm	Ball matrix and dimensions same. So no change in HW design
Package Material	Pb and Halogen Free			Same

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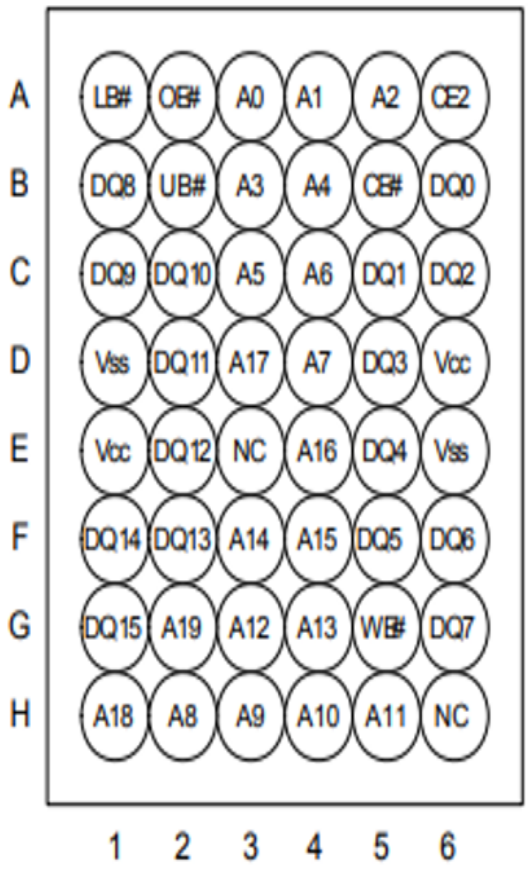
Pin to Pin Compatible	Yes	

AS6C1616-55BIN
AS6C1616-70BIN
PinOut



AS6C1616A-55BIN
Pinout

	1	2	3	4	5	6
A	$\overline{LB}$	$\overline{OE}$	A0	A1	A2	CS2
B	DQ8	$\overline{UB}$	A3	A4	$\overline{CS1}$	DQ0
C	DQ9	DQ10	A5	A6	DQ1	DQ2
D	V_{SS}	DQ11	A17	A7	DQ3	V_{CC}
E	V_{CC}	DQ12	NC	A16	DQ4	V_{SS}
F	DQ14	DQ13	A14	A15	DQ5	DQ6
G	DQ15	A19	A12	A13	$\overline{WE}$	DQ7
H	A18	A8	A9	A10	A11	NC