

AS4C16M16SA-6BIN vs IS42SM16160K-6BLI-TR Comparison

Part Number & result Parameter	AS4C16M16SA-6BIN	IS42SM16160K-6BLI-TR	Comparison Result
Product Description	SDRAM	SDRAM	Same
Capacity	256Mb (16M x 16)	256Mb (16M x 16)	Same
Memory Organization	4M, x16bits, x4 banks	4M, x16bits, x4 banks	Same
Operating Power Supply	$V_{DD} \& V_{DDQ} = 3.3V \pm 0.3V$	$V_{DD} \& V_{DDQ} = 3.3V \pm 0.3V$	Same
Operating Temperature	Industrial (-40°C to 85°C)	Industrial (-40°C to 85°C)	Same
Clock Frequency	166MHz	166MHz	Same
CAS Latency	2 or 3	2 or 3	Same
tRCD & tRP (ns)	18	18	Same
Average Refresh Period	8192 cycles/64ms	8192 cycles/64ms	Same
I/O Capacitance	CIO: 4pf to 6pf	CIO: 3pf to 5pf	Comparable
Pin to Pin Compatible	Pin to Pin Compatible		Same
AC/DC Characteristics	Omit.(See datasheet)	Omit.(See datasheet)	Comparable ,Meet JEDEC
IDD Specification			
IDD Spec conditions	-40C ≤ Tc ≤ 85C VDD = 3.3 ±0.3V	-40C ≤ Tc ≤ 85C VDD = 3.3 ±0.3V	Same
IDD1 (mA)	60	60	Same
IDD2N (mA)	25	10	ISSI Better
IDD2NS (mA)	18	4	ISSI Better
IDD2P (mA)	2	0.3	ISSI Better
IDD2PS (mA)	2	0.3	ISSI Better
IDD3N (mA)	35	25	ISSI Better
IDD3NS (mA)	35	15	ISSI Better
IDD4(mA)	62	120	Alliance Better
IDD5 (mA)	75	110	Alliance Better
IDD6 (mA)	2	0.7	Comparable
Package 54 Ball TFBGA	8 x 8 x 1.2mm	8 x 8 x 1.2mm	Same
Package Material	Pb and Halogen Free	Pb and Halogen Free	Same