

1M X 32 DRAM SIMM Memory Module

FEATURES

- Performance range:

	t_{RAC}	t_{CAC}	t_{RC}
SL32(S/T)4A1M1A-A60	60ns	15ns	110ns
SL32(S/T)4A1M1A-A70	70ns	20ns	130ns
SL32(S/T)4A1M1A-A80	80ns	20ns	150ns

- Fast Page Mode operation
- CAS-before-RAS refresh capability
- RAS-only and Hidden refresh capability
- TTL compatible inputs and outputs
- Single +5V $\pm$ 10% power supply
- 1024 cycles/16ms refresh
- JEDEC standard pinout
- Available in tin or gold edge connectors

GENERAL DESCRIPTION

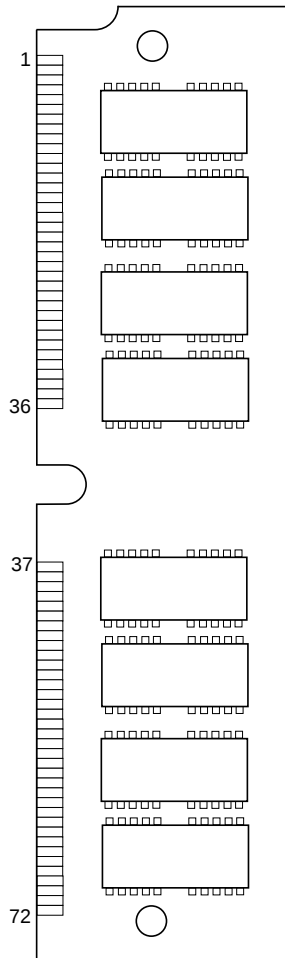
SiliconTech's SL32(S/T)4A1M1A-A60 is a 1M bit x 32 Dynamic RAM high density memory module. The module consists of eight CMOS 1M x 4 bit DRAMs in 20-pin SOJ package mounted on a 72-pin glass epoxy substrate. A 0.1 μ F decoupling capacitor is mounted for each DRAM.

The module is a Single In-line Memory Module with tin (SL32T4A1M1A-A60) or gold (SL32S4A1M1A-A60) edge connections and is intended for mounting into 72-pin edge connector sockets.

PIN CONFIGURATION (Front View)

Pin	Symbol	Pin	Symbol	Pin	Symbol
1	V_{SS}	25	DQ_{22}	49	DQ_8
2	DQ_0	26	DQ_7	50	DQ_{24}
3	DQ_{16}	27	DQ_{23}	51	DQ_9
4	DQ_1	28	A_7	52	DQ_{25}
5	DQ_{17}	29	NC	53	DQ_{10}
6	DQ_2	30	V_{CC}	54	DQ_{26}
7	DQ_{18}	31	A_8	55	DQ_{11}
8	DQ_3	32	A_9	56	DQ_{27}
9	DQ_{19}	33	NC	57	DQ_{12}
10	V_{CC}	34	$\overline{\text{RAS}}_2$	58	DQ_{28}
11	NC	35	NC	59	V_{CC}
12	A_0	36	NC	60	DQ_{29}
13	A_1	37	NC	61	DQ_{13}
14	A_2	38	NC	62	DQ_{30}
15	A_3	39	V_{SS}	63	DQ_{14}
16	A_4	40	$\overline{\text{CAS}}_0$	64	DQ_{31}
17	A_5	41	$\overline{\text{CAS}}_2$	65	DQ_{15}
18	A_6	42	$\overline{\text{CAS}}_3$	66	NC
19	NC	43	$\overline{\text{CAS}}_1$	67	PD_1
20	DQ_4	44	$\overline{\text{RAS}}_0$	68	PD_2
21	DQ_{20}	45	NC	69	PD_3
22	DQ_5	46	NC	70	PD_4
23	DQ_{21}	47	$\overline{\text{W}}$	71	NC
24	DQ_6	48	NC	72	V_{SS}

Pin Location



Pin Names

Pin Name	Pin Function
A_0 - A_9	Address Inputs
DQ_0 - DQ_{31}	Data In/Out
$\overline{\text{W}}$	Read/Write Input
$\overline{\text{RAS}}_0$, $\overline{\text{RAS}}_2$	Row Address Strobe
$\overline{\text{CAS}}_0$ - $\overline{\text{CAS}}_3$	Column Address Strobe
PD_1 - PD_4	Presence Detect
V_{CC}	Power (+5V)
V_{SS}	Ground
NC	No Connection

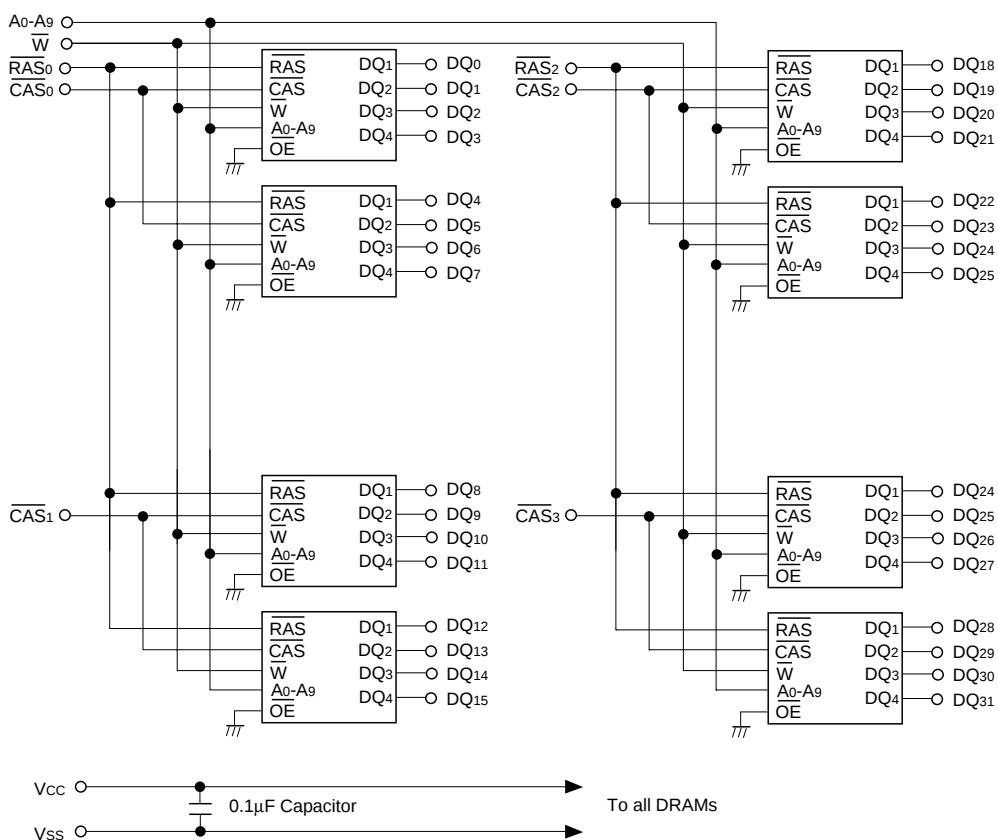
Presence Detect Pins* (Optional)

Pin	60ns	70ns	80ns
PD_1	V_{SS}	V_{SS}	V_{SS}
PD_2	V_{SS}	V_{SS}	V_{SS}
PD_3	NC	V_{SS}	NC
PD_4	NC	NC	V_{SS}

* Pin Connection Changing Available

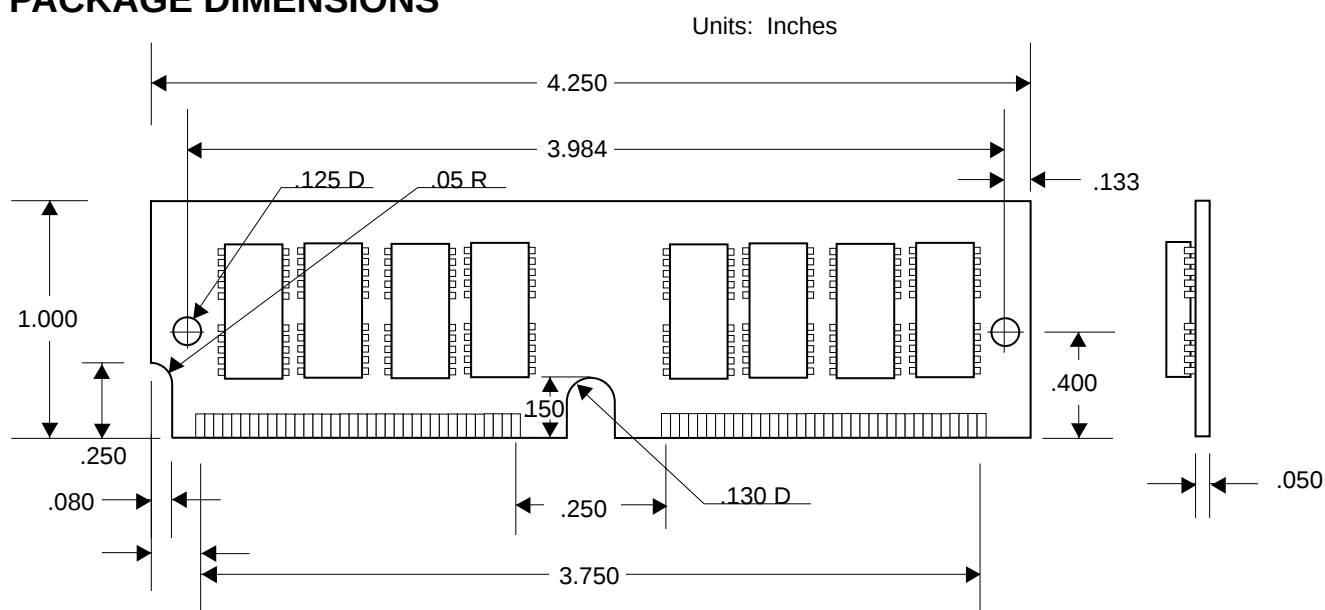
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FUNCTIONAL BLOCK DIAGRAM



0029

PACKAGE DIMENSIONS



125-1

TOLERANCES: ± 0.005 UNLESS OTHERWISE SPECIFIED