

# PcRam

TS1M3660

## Description

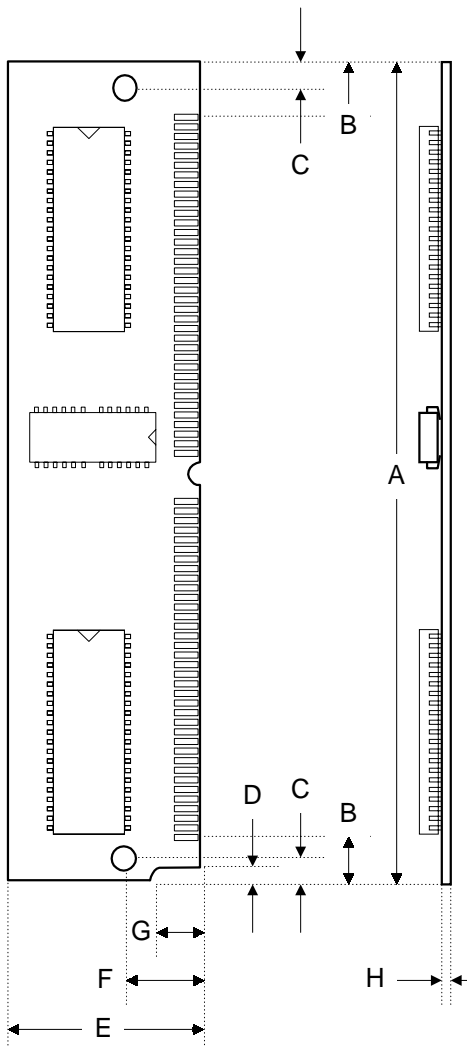
The TS1M3660 is a 1M by 36-bit dynamic RAM module with 2 pcs of 1Mx16 DRAMs and 1 pcs of 1Mx4 quad CAS DRAMs assembled on the printed circuit board.

The TS1M3660 is optimized for application to systems which require high density and large capacity along with compact sizing.

## Features

- 1,048,576-word by 36-bit organization.
- Fast Page Mode Operation.
- Single +5.0V  $\pm$  10% power supply.
- 512 cycles refresh.
- Lower power consumption.
- CAS before RAS refresh, RAS only refresh, Hidden refresh, Fast Page Mode, Read\_Modify\_Write capability.

## Placement



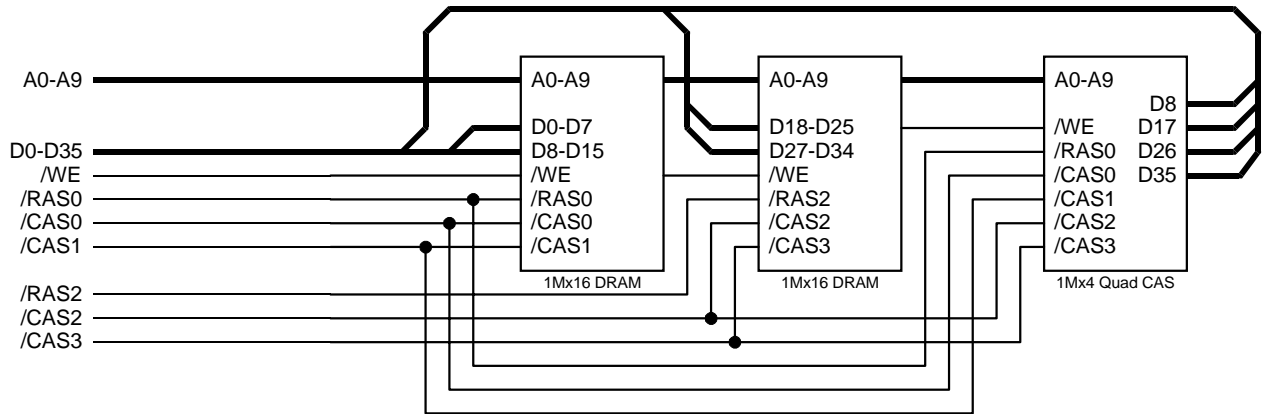
TS1M3660	
Access time from /RAS t <sub>RAC</sub>	60ns
Access time from /CAS t <sub>CAC</sub>	15ns
Random read/write cycle time t <sub>RC</sub>	110ns
Page mode cycle time t <sub>PC</sub>	40ns

## Dimensions

Side	Millimeters	Inches
A	107.95 $\pm$ 0.400	4.520 $\pm$ 0.015
B	6.35	0.250
C	3.38	0.133
D	2.03	0.080
E	25.40 $\pm$ 0.200	1.000 $\pm$ 0.008
F	10.16	0.400
G	6.35	0.250
H	1.27 $\pm$ 0.100	0.050 $\pm$ 0.004

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# TS1M3660-- Block Diagram



## Pinouts

Pin No	Pin Name	Pin No	Pin Name	Pin No	Pin Name
01	Vss	25	D24	49	D9
02	D0	26	D7	50	D27
03	D18	27	D25	51	D10
04	D1	28	A7	52	D28
05	D19	29	NC	53	D11
06	D2	30	Vcc	54	D29
07	D20	31	A8	55	D12
08	D3	32	A9	56	D30
09	D21	33	NC	57	D13
10	Vcc	34	/RAS2	58	D31
11	NC	35	D26	59	Vcc
12	A0	36	D8	60	D32
13	A1	37	D17	61	D14
14	A2	38	D35	62	D33
15	A3	39	Vss	63	D15
16	A4	40	/CAS0	64	D34
17	A5	41	/CAS2	65	D16
18	A6	42	/CAS3	66	NC
19	NC	43	/CAS1	67	PD1
20	D4	44	/RAS0	68	PD2
21	D22	45	NC	69	PD3
22	D5	46	NC	70	PD4
23	D23	47	/WE	71	NC
24	D6	48	NC	72	Vss

## Pin Identification

Symbol	Function
A0 ~ A9	Address inputs
D0 ~ D35	Common data inputs/outputs
/RAS0, /RAS2	Row address strobes
/CAS0 ~ /CAS3	Column address strobes
/WE	Write enable
Vcc	+5.0 Volt power supply
Vss	Ground
NC	No connection
PD1 ~ PD4	Presence detection pin

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