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# HB56TW132D Series

1,048,576-word  $\times$  32-bit High Density Dynamic RAM Module

# HITACHI

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## Description

The HB56TW132D is a 1 M  $\times$  32 dynamic RAM Small Outline DIMM (S. O. DIMM), mounted 8 pieces of 4-Mbit DRAM (HM51W4400BTT/ BLTT) sealed in TSOP package. An outline of the HB56TW132D is 72-pin Zig Zag Dual tabs socket type compact and thin package. Therefore, the HB56TW132D makes high density mounting possible without surface mount technology. The HB56TW132D provides common data inputs and outputs. Decoupling capacitors are mounted beside the each TSOP of its module board.

## Features

- 72-pin
  - Lead pitch: 1.27 mm
- Single 3.3 V ( $\pm$  0.3 V) supply
- High speed
  - Access time: 60 ns/70 ns/80 ns (max)
- Low power dissipation
  - Active mode: 2.30 W/2.02 W/1.73 W (max)
  - Standby mode: 57.6 mW (max)  
2.88 mW (max) (L-version)
- Fast page mode capability
- 1024 refresh cycle : 16 ms  
: 128 ms (L-version)
- 3 variations of refresh
  - $\overline{\text{RAS}}$ -only refresh
  - $\overline{\text{CAS}}$ -before- $\overline{\text{RAS}}$  refresh
  - Self refresh (L-version)
- TTL compatible

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## Ordering Information

Type No.	Access time	Package	Contact Pad
HB56TW132D-6B	60 ns	72-pin Small outline DIMM	Gold
HB56TW132D-7B	70 ns		
HB56TW132D-8B	80 ns		
HB56TW132D-6BL	60 ns		
HB56TW132D-7BL	70 ns		
HB56TW132D-8BL	80 ns		

Note: The specification of this device is subject to change without notice. Please contact your nearest Hitachi’s Sales Dept. regarding specification.