# HB56D236 Series

## 2,097,152-word × 36-bit High Density Dynamic RAM Module

HITACHI

## Description

The HB56D236 is a 2M × 36-bit dynamic RAM module, mounted 16 pieces of 4 Mbit DRAM (HM514400CS/CLS) sealed in SOJ package and 4 pieces of 2 Mbit DRAM (HM512200BS/BLS) sealed in SOJ package. An outline of the HB56D236 is 72-pin single in-line package. Therefore, the HB56D236 makes high density mounting possible without surface mount technology. The HB56D236 provides common data inputs and outputs. Decoupling capacitors are mounted beneath each SOJ but only on the one side of its module board.

## Features

- 72-pin
  - Lead pitch: 1.27 mm
- Single 5 V (±5%) supply
- High speed
  - Access time: 60 ns/70 ns/80 ns (max)
- Low power dissipation
  - Active mode: 5.73 W/5.20 W/4.68 W (max)
  - Standby mode: 210 mW (max)
    10.5 mW (max) (L-version)
- Fast page mode capability
- 1,024 refresh cycle: 16 ms
  1,024 refresh cycle: 128 ms (L-version)
- 3 variations of refresh
  - $\overline{\text{RAS}}$ only refresh
  - $\overline{\text{CAS}}$-before-$\overline{\text{RAS}}$ refresh
  - Hidden refresh
- TTL compatible

## Ordering Information

| Type No. | Access Time | Package | Contact Pad |
|---|---|---|---|
| HB56D236BW-6C | 60 ns | 72-pin SIP socket type | Gold |
| HB56D236BW-7C | 70 ns | | |
| HB56D236BW-8C | 80 ns | | |
| HB56D236BW-6CL | 60 ns | | |
| HB56D236BW-7CL | 70 ns | | |
| HB56D236BW-8CL | 80 ns | | |
| HB56D236SBW-6C | 60 ns | 72-pin SIP socket type | Solder |
| HB56D236SBW-7C | 70 ns | | |
| HB56D236SBW-8C | 80 ns | | |
| HB56D236SBW-6CL | 60 ns | | |
| HB56D236SBW-7CL | 70 ns | | |
| HB56D236SBW-8CL | 80 ns | | |

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