HB526R464DBK Series

1,048,576-word × 64-bit × 4-bank Synchronous Dynamic RAM Module

HITACHI

Description

The HB526R464DBK is a 1M× 64 × 4 banks Synchronous Dynamic RAM Small Outline Dual In-line Memory Module (S.O.DIMM), mounted 8 pieces of 16-Mbit SDRAM (HM5216805TB) sealed in TCP package and 1 piece of serial EEPROM (24C02) for Presence Detect (PD). An outline of the HB526R464DBK is 144-pin Zig Zag Dual tabs socket type compact and thin package. Therefore, the HB526R464DBK makes high density mounting possible without surface mount technology. The HB526R464DBK provides common data inputs and outputs. Decoupling capacitors are mounted beside each TCP on the module board.

Features

- 144-pin Zig Zag Dual tabs socket type
  - Outline: 67.60 mm (Length) × 25.40 mm (Height) × 3.80 mm (Thickness)
  - Lead pitch : 1.27 mm
- 3.3V (±0.3 V) power supply
- Clock frequency : 100 MHz / 83 MHz
- LVTTL interface
- 4 Banks can operates simultaneously and independently
- Burst read/write operation and burst read/single write operation capability
- Programmable burst length : 1/2/4/8/full page
- Programmable burst sequence
  - Sequential/interleave
- Full page burst length capability
  - Sequential burst
  - Burst stop capability
- Programmable $\overline{\text{CAS}}$ latency : 2/3
- 4096 refresh cycles: 64 ms

Hitachi semiconductor

- 2 variations of refresh
  - — Auto refresh
  - — Self refresh

Ordering Information

Type No.	Frequency	Package	Contact pad
HB526R464DBK-10	100 MHz	Small outline DIMM (144-pin)	Gold
HB526R464DBK-12	83 MHz		

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

When using this document, keep the following in mind:

1. This document may, wholly or partially, be subject to change without notice.
2. All rights are reserved: No one is permitted to reproduce or duplicate, in any form, the whole or part of this document without Hitachi's permission.
3. Hitachi will not be held responsible for any damage to the user that may result from accidents or any other reasons during operation of the user's unit according to this document.
4. Circuitry and other examples described herein are meant merely to indicate the characteristics and performance of Hitachi's semiconductor products. Hitachi assumes no responsibility for any intellectual property claims or other problems that may result from applications based on the examples described herein.
5. No license is granted by implication or otherwise under any patents or other rights of any third party or Hitachi, Ltd.
6. MEDICAL APPLICATIONS: Hitachi's products are not authorized for use in MEDICAL APPLICATIONS without the written consent of the appropriate officer of Hitachi's sales company. Such use includes, but is not limited to, use in life support systems. Buyers of Hitachi's products are requested to notify the relevant Hitachi sales offices when planning to use the products in MEDICAL APPLICATIONS.

HITACHI

Hitachi, Ltd.
Semiconductor & IC Div.
Nippon Bldg., 2-6-2, Ohte-machi, Chiyoda-ku, Tokyo 100, Japan
Tel: Tokyo (03) 3270-2111
Fax: (03) 3270-5109

For further information write to:

Hitachi America, Ltd.
Semiconductor & IC Div.
2000 Sierra Point Parkway
Brisbane, CA. 94005-1835
U S A
Tel: 415-589-8300
Fax: 415-583-4207

Hitachi Europe GmbH
Electronic Components Group
Continental Europe
Dornacher Straße 3
D-85622 Feldkirchen
München
Tel: 089-9 91 80-0
Fax: 089-9 29 30 00

Hitachi Europe Ltd.
Electronic Components Div.
Northern Europe Headquarters
Whitebrook Park
Lower Cookham Road
Maidenhead
Berkshire SL6 8YA
United Kingdom
Tel: 0628-585000
Fax: 0628-778322

Hitachi Asia Pte. Ltd.
16 Collyer Quay #20-00
Hitachi Tower
Singapore 0104
Tel: 535-2100
Fax: 535-1533

Hitachi Asia (Hong Kong) Ltd.
Unit 706, North Tower,
World Finance Centre,
Harbour City, Canton Road
Tsim Sha Tsui, Kowloon
Hong Kong
Tel: 27359218
Fax: 27306071