

CY14B104K, CY14B104M

4-Mbit (512K x 8/256K x 16) nvSRAM 带实时时钟

特性

- ■访问时间为 25 ns 和 45 ns
- 内部采用 512K x 8 (CY14B104K) 或 256K x 16 (CY14B104M) 的组织方式
- ■只需一个小电容,即可在断电时实现自动存储
- ■可通过软件、器件引脚或断电时自动存储 (AutoStore on Power Down) 触发存储至 QuantumTrap 非易失性元件
- ■可通过软件或加电触发回读至 SRAM
- 可靠性高
- ■无限次读、写和回读循环
- ■一百万次 QuantumTrap 存储循环
- ■20年数据保留时间
- 3V +20%, -10% 单电源供电
- 能够实现数据完整性的赛普拉斯 nvSRAM,功能齐全的实时时 钟 (RTC)

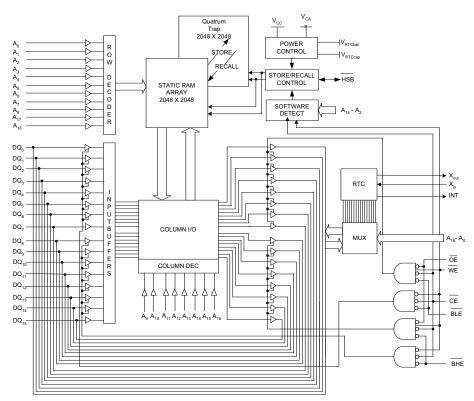
逻辑框图[1、2、3]

- 看门狗定时器
- 带可编程中断的时钟警报
- RTC 备用电容或电池
- 工业级温度
- 44 和 54 引脚 TSOP II 封装
- ■无铅、符合 RoHS 标准

功能说明

赛普拉斯 CY14B104K 和 CY14B104M 将 4 Mbit 的非易失性静态 RAM 和功能齐全的 RTC 整合在了一个单片集成电路中。嵌入式非易失性元件通过采用 QuantumTrap 技术,打造出了世界上最可靠的非易失性存储器。SRAM 能够实现无限次读写循环,而独立的非易失性数据则存储在非易失性元件中。

RTC 功能提供了一个带闰年跟踪及可编程高精度振荡器的精确 时钟。警报功能可以编程,以便设置定期的分、时、日或月警报。 此外,还提供用于进程控制的可编程看门狗定时器。



注:

- 1. 地址 A₀ A₁₈ 适用于 x8 配置; 地址 A₀ A₁₇ 适用于 x16 配置。
- 2. 数据 DQ₀ DQ₇ 适用于 x8 配置;数据 DQ₀ DQ₁₅ 适用于 x16 配置。

3. BHE 和 BLE 仅适用于 x16 配置。

Cypress Semiconductor Corporation • 文档编号: 001-63439 修订版 *A

198 Champion Court

San Jose, CA 95134-1709 • 408-943-2600 修订时间: 2014 年 6 月 6 日



文档修订记录页

| 文档标题 : CY14B104K, CY14B104M 4-Mbit (512K x 8/256K x 16) nvSRAM 带实时时钟 文档编号: 001-63439 | | | | | |
|---|---------|--------------------|--------------------|----------------------------------|--|
| Revision | ECN | Orig. of Change | Submission Date | Description of Change | |
| ** | 3002218 | VLX | 08/06/2010 | Translation of spec 001-07103 *P | |
| *A | 4400717 | SCHC | 06/06/2014 | No technical updates. | |

销售、解决方案和法律信息

全球销售和设计支持

立口

赛普拉斯公司拥有一个由办事处、解决方案中心、工厂和经销商组成的全球性网络。要找到距您最近的办事处,请访问赛普拉斯公司 的位置。

| cypress.com/go/automotive | PSoC 解决方案 |
|---------------------------|---|
| cypress.com/go/clocks | psoc.cypress.com/solutions |
| cypress.com/go/interface | PSoC 1 PSoC 3 PSoC 5 |
| cypress.com/go/powerpsoc | |
| cypress.com/go/plc | |
| cypress.com/go/memory | |
| cypress.com/go/image | |
| cypress.com/go/psoc | |
| cypress.com/go/touch | |
| cypress.com/go/USB | |
| cypress.com/go/wireless | |
| | cypress.com/go/clocks cypress.com/go/interface cypress.com/go/powerpsoc cypress.com/go/plc cypress.com/go/memory cypress.com/go/image cypress.com/go/psoc cypress.com/go/touch cypress.com/go/USB |

© Cypress Semiconductor Corporation, 2010-2014. The information contained herein is subject to change without notice. Cypress Semiconductor Corporation assumes no responsibility for the use of any circuitry other than circuitry embodied in a Cypress product. Nor does it convey or imply any license under patent or other rights. Cypress products are not warranted nor intended to be used for medical, life support, life saving, critical control or safety applications, unless pursuant to an express written agreement with Cypress. Furthermore, Cypress does not authorize its products for use as critical components in life-support systems where a malfunction or failure may reasonably be expected to result in significant injury to the user. The inclusion of Cypress products in life-support systems application implies that the manufacturer assumes all risk of such use and in doing so indemnifies Cypress against all charges.

Any Source Code (software and/or firmware) is owned by Cypress Semiconductor Corporation (Cypress) and is protected by and subject to worldwide patent protection (United States and foreign), United States copyright laws and international treaty provisions. Cypress hereby grants to licensee a personal, non-exclusive, non-transferable license to copy, use, modify, create derivative works of, and compile the Cypress Source Code and derivative works for the sole purpose of creating custom software and or firmware in support of licensee product to be used only in conjunction with a Cypress integrated circuit as specified in the applicable agreement. Any reproduction, modification, translation, compilation, or representation of this Source Code except as specified above is prohibited without the express written permission of Cypress.

Disclaimer: CYPRESS MAKES NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, WITH REGARD TO THIS MATERIAL, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Cypress reserves the right to make changes without further notice to the materials described herein. Cypress does not assume any liability arising out of the application or use of any product or circuit described herein. Cypress does not authorize its products for use as critical components in life-support systems where a malfunction or failure may reasonably be expected to result in significant injury to the user. The inclusion of Cypress' product in a life-support systems application implies that the manufacturer assumes all risk of such use and in doing so indemnifies Cypress against all charges.

Use may be limited by and subject to the applicable Cypress software license agreement.

文档编号: 001-63439 修订版 *A

Revised 2014 年 6 月 6 日