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瑞萨电子公司

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38D2 群

定时器 Y（实时端口控制：步进电机控制）

1. 要点

本篇资料介绍了一个如何使用 38D2 群定时器 Y（实时端口控制：步进电机控制）的例子。

2. 说明

该应用说明适用于以下 MCU 和参数：

适用的 MCU：38D2 群

振荡频率：8MHz

由于 SFR 位的配置关系，此参考程序可能包含一些对未使用功能位的操作。请根据用户系统的使用情况设置这些位的值。

3. 内容

3.1 步进电机控制

概要: 用实时端口控制步进电机的旋转。

详述:

- 应用实时端口 RTP0 和 RTP1 对电机进行控制。
- 计数源为 $f(X_{IN}) = 8\text{MHz}$ 的 16 分频。
- 在定时器 Y 的中断程序里更新定时器 Y 的设定值 (RTP 输出时间) 和实时端口输出值。具体数值的设定请参照下表。

图 3.1 为连接框图、定时器 Y 的设定值表和 RTP 输出值表的示例, 图 3.2 为 RTP 输出示例, 图 3.3 为相关寄存器的设定, 图 3.4 为程序流程图。

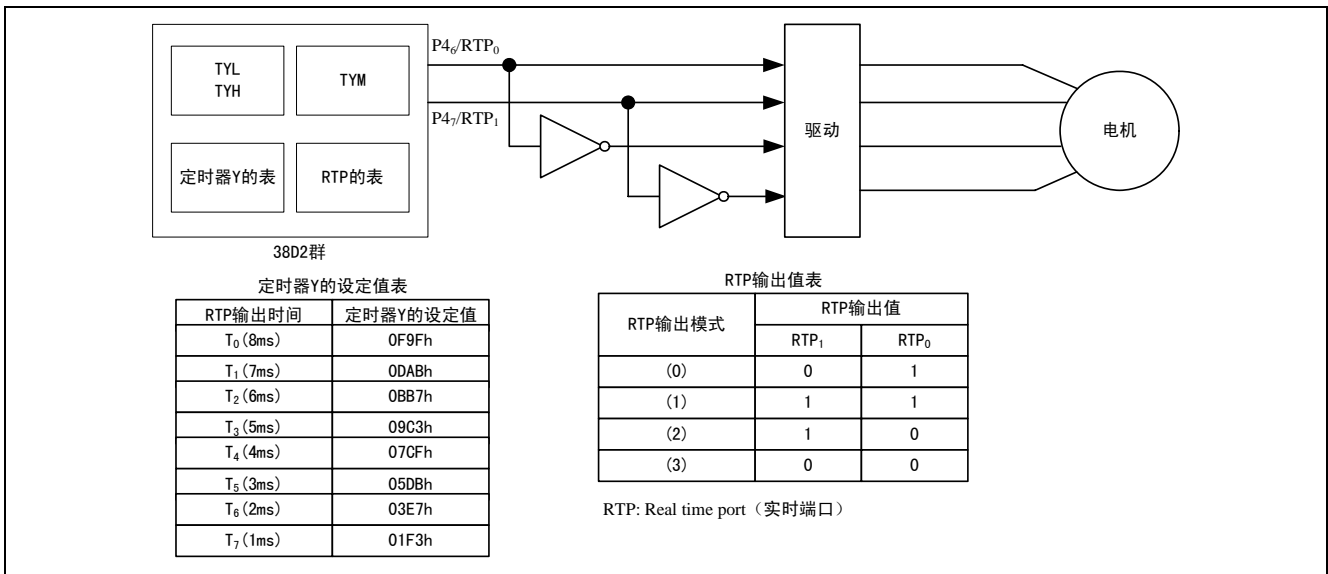


图 3.1 连接框图、定时器 Y 的设定值表和 RTP 输出值表的示例

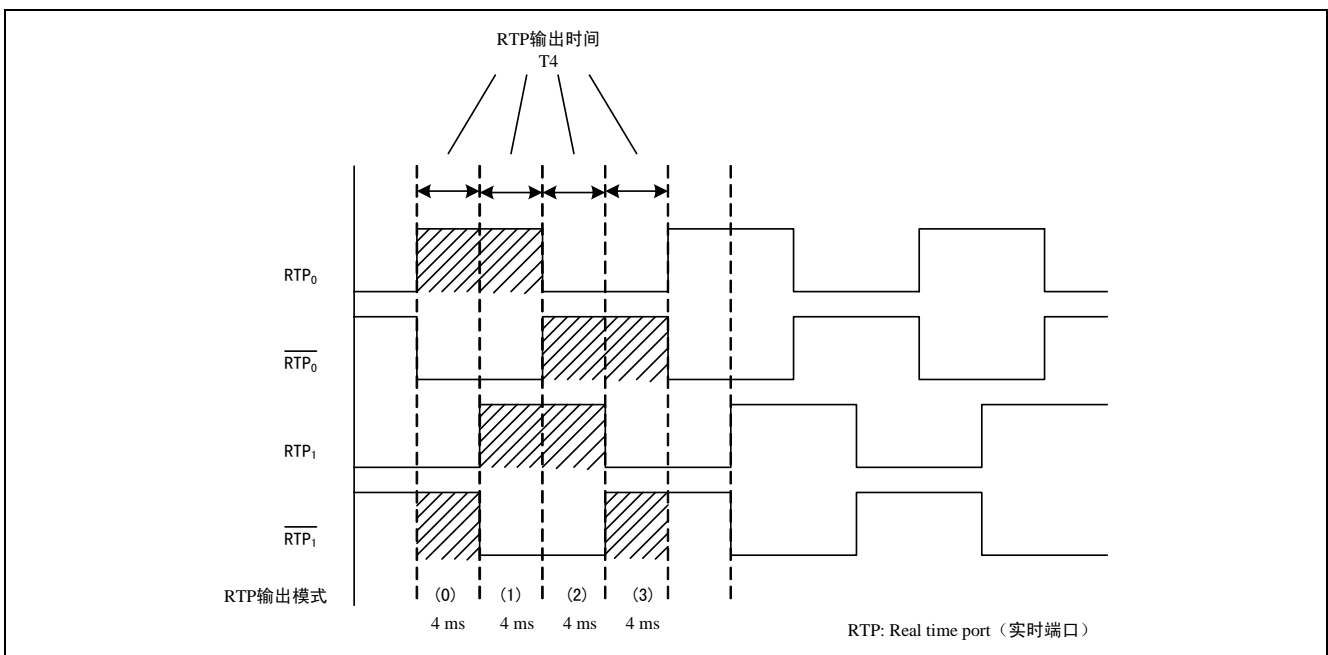


图 3.2 RTP 输出示例

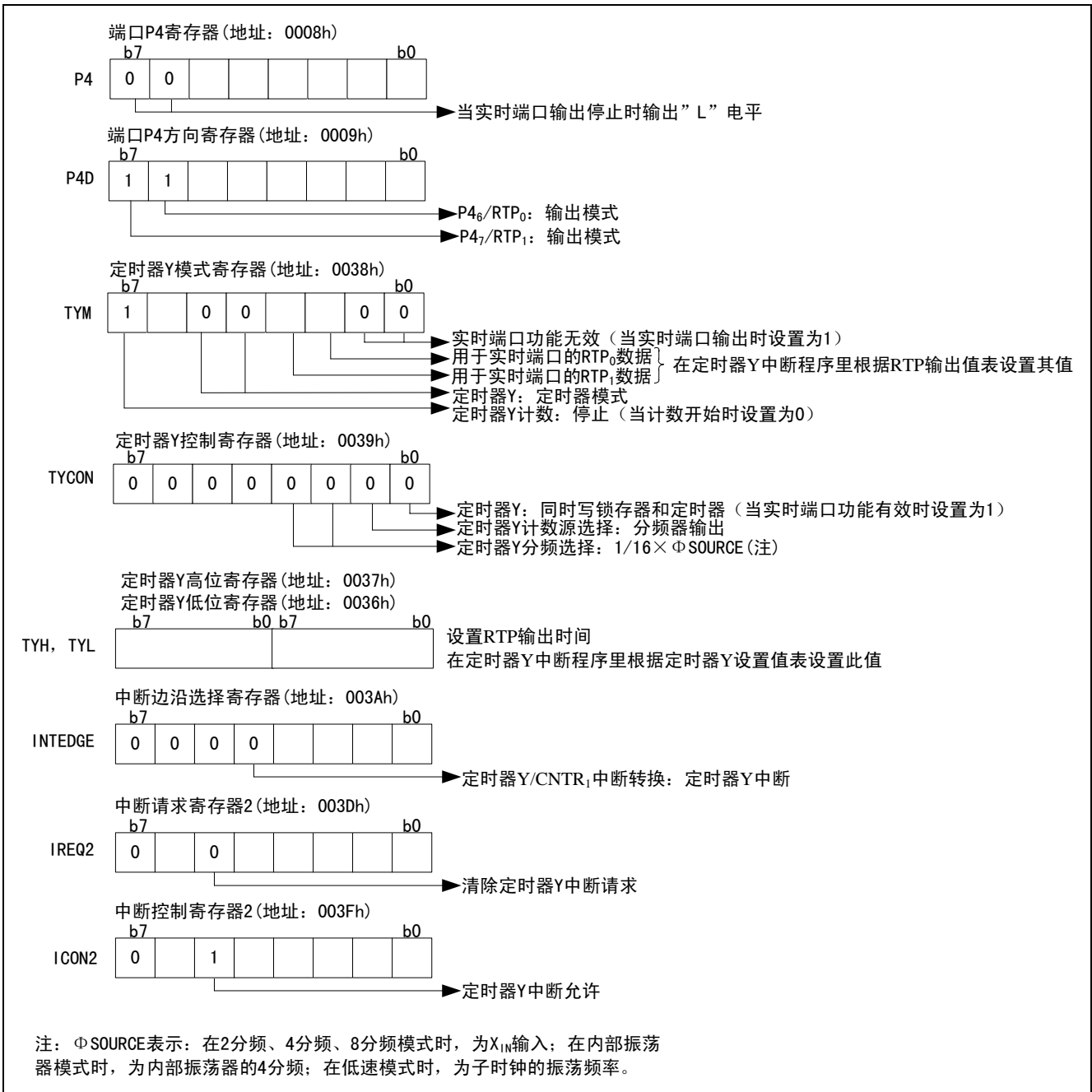


图 3.3 相关寄存器的设定

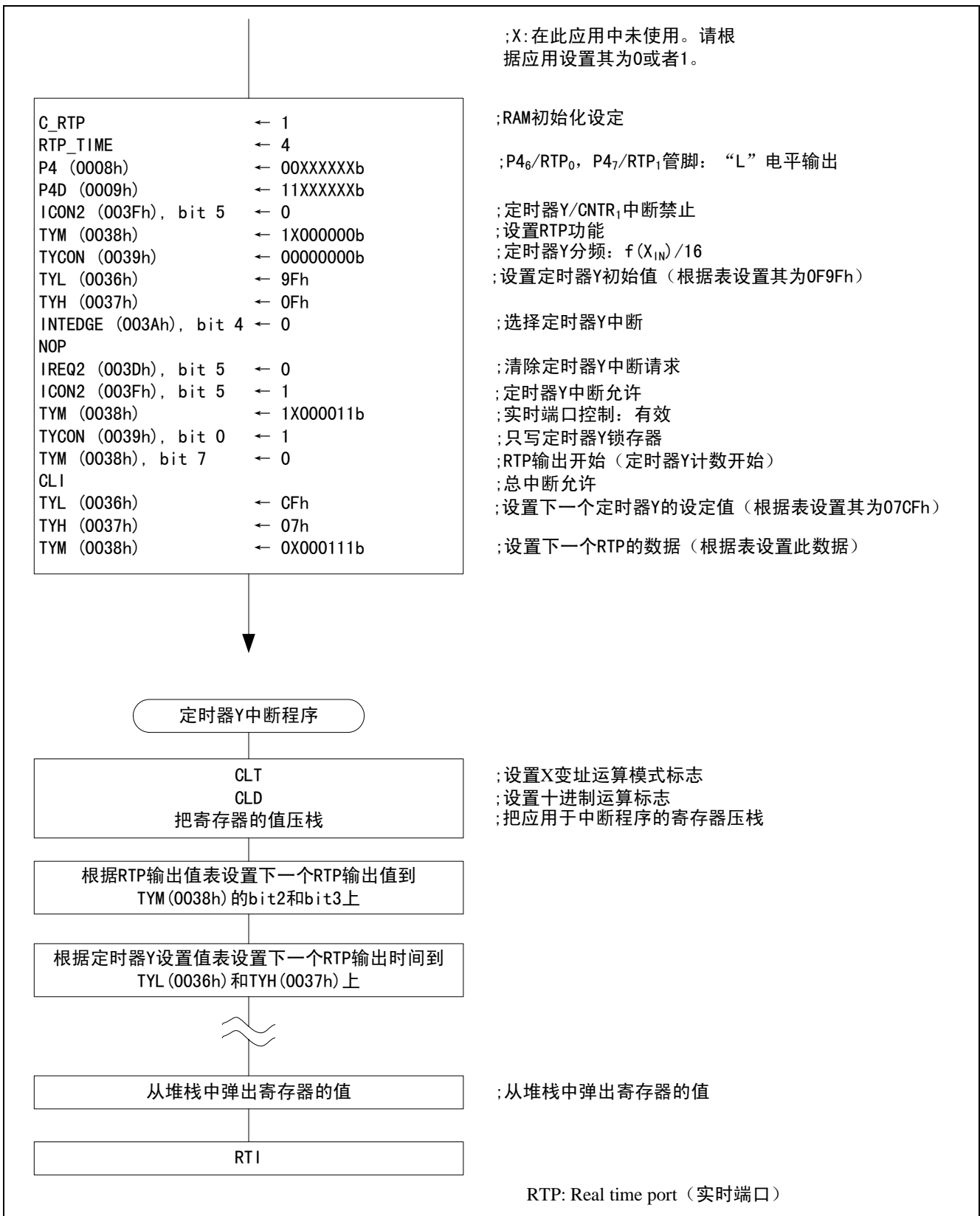


图 3.4 程序流程图

4. 参考例程

请从瑞萨科技网站上下载参考例程。

在 38D2 群的网页上单击左边的“Application Notes”下载应用笔记。

5. 参考文献

硬件手册

38D2 群数据手册

(最新版本请从瑞萨科技网页上取得)

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修订记录

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		页	要点
1.00	2007.06.06	—	初版发行
2.00	2007.07.16	4	修改图 3.4 实时端口控制 修改例程
2.01	2008.03.17	6	更新咨询邮箱地址, 修改硬件手册名称

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