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2010年4月1日
瑞萨电子公司

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7544 群

定时器 X 运行（脉冲宽度测定模式）

要点

这是定时器 X 的脉冲宽度测定模式的应用例子。

动作确认器件

本资料说明的应用例子适合下列单片机和使用条件：

- 单片机：7544 群

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1. 应用例子的说明

■要点

对输入到P14/CNTR0管脚的脉冲的“H”电平宽度进行计数。

■说明

对输入到P14/CNTR0管脚的FG脉冲的“H”电平宽度进行计数。由定时器X中断检测下溢，由CNTR0中断检测输入脉冲的“H”电平的结束。

运行时钟使用f(XIN)=4.19MHz高速模式。

■例

当f(XIN)=4.19MHz时，以16分频后的3.8μs为计数源。在FFFF16～000016的范围内可测定到250ms。

1.1 定时器的连接和分频比的设定

定时器的连接和分频比的设定如图1所示。

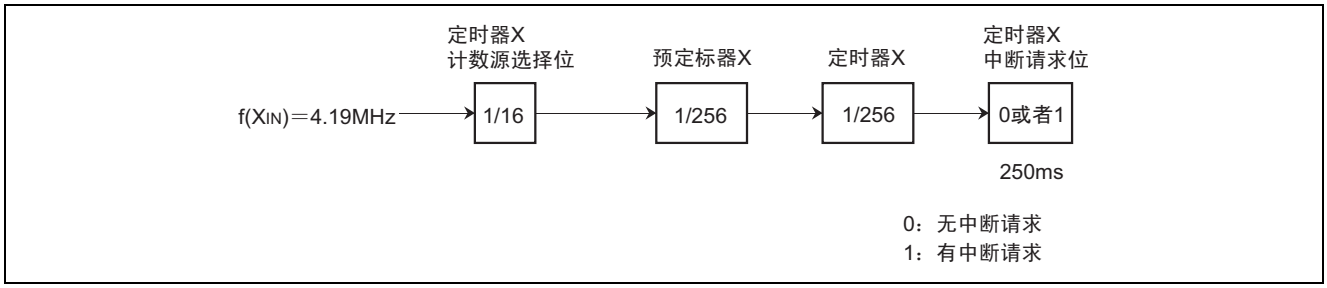
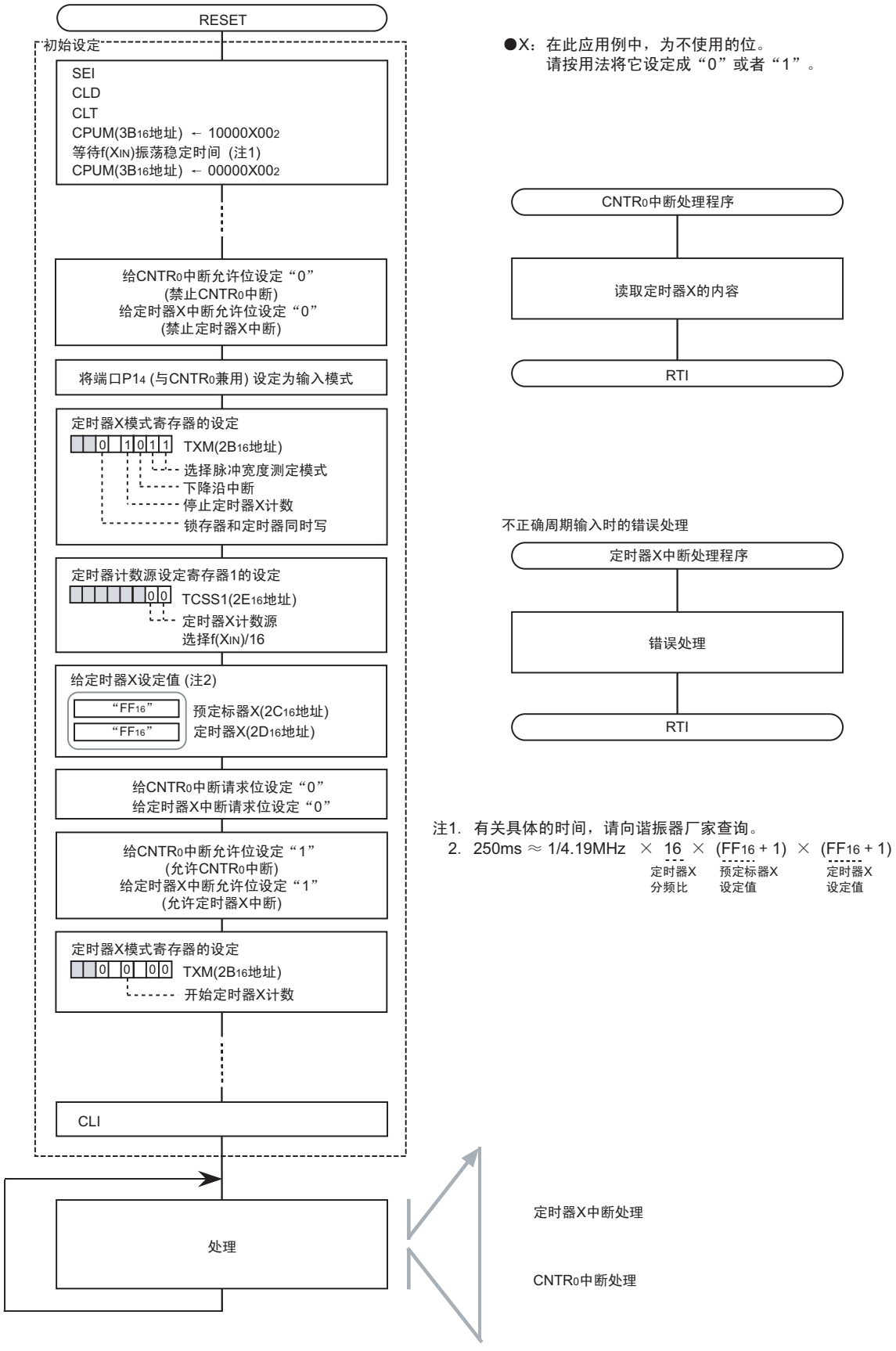


图 1 定时器的连接和分频比的设定

1.2 控制步骤例子

控制步骤例子如图2所示。



注1. 有关具体的时间，请向谐振器厂家查询。

2. $250\text{ms} \approx 1/4.19\text{MHz} \times \underset{\text{定时器X分频比}}{16} \times \underset{\text{预定标器X设定值}}{(FF_{16}+1)} \times \underset{\text{定时器X设定值}}{(FF_{16}+1)}$

图 2　控制步骤例子

2. 参考文献

数据表

7544群数据表（最新版本请从瑞萨科技网页取得）

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修订记录

Rev.	发行日	修订内容	
		页	修订处
1.00	2004.09.15	—	初版发行

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