

YRCN79F7024-TB

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示例程序

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介绍

示例程序包括以下函数和功能:

- 微控制器的初始化
- 设置外部中断INTP0
- 设置A/D转换器功能
- 设置CMP(比较器)功能

目标器件

78K0/uPD79F7024

当应用此示例程序于其他微控制器时, 请根据目标微控制器规格修改程序, 并对修改的程序充分进行评估。

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1. 执行示例程序

示例按以下顺序执行：

- (1) 上电，电源灯（LED 1 ）点亮，LED2-LED4同时闪烁；
- (2) LED2-LED4 闪烁停止；
- (3) 用户可以使用可调电阻进行调节，“ANI4”用于A/D转换功能(LED2-LED3 显示), “CMPIN”用于CMP 功能(LED4 显示)；
- (4) 用户可以使用按键，“RESET”用于复位功能，程序重新开始执行；
- (5) 用户可以使用按键，“INTP0”用于INPT0 中断，LED2-LED4 循环点亮直至全灭；

在使用示例前，请先明确MINICUBE2/EZ-CUBE硬件设置和与目标连接是否正确。

具体细节请参见MINICUBE2/EZ-CUBE用户手册。

并请检查MINICUBE2/EZ-CUBE是否使用了最新固件。

2. 操作环境

工作频率	内部时钟
综合开发环境	瑞萨电子综合开发环境 PM+ V6.32, CC78K0 V4.10, RA78K0 V4.10, ID78K0-QB V3.21; CubeSuite+ V1.02.01

3. 函数说明

此节描述示例程序中的各个函数。

[函数名称] Clock_init	
概要	时钟初始化
头文件	无
声明	void Clock_init(void)
说明	设置内部时钟 (8MHz)
返回值	无
备注	无

[函数名称] AD_init	
概要	AD 功能初始化
头文件	无
声明	void AD_init(void)
说明	设置ANI4用于AD转换
返回值	无
备注	无

[函数名称] Read_AD_value	
概要	AD功能
头文件	无
声明	void Read_AD_value(void)
说明	AD转换，读取AD转换值
返回值	无
备注	无

[函数名称] CMP_init	
概要	CMP 功能初始化
头文件	无
声明	void CMP_init(void)
说明	设置内部参考电压用于比较器
返回值	无
备注	无

[函数名称] INTP0_init	
概要	INTP0中断初始化
头文件	无
声明	void INTP0_init(void)
说明	设置INTP0中断
返回值	无
备注	无

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修订记录

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		页	概要
1.00	Sept 1, 2012	—	第一版发行

产品使用时的注意事项

本文对适用于单片机所有产品的“使用时的注意事项”进行说明。有关个别的使用时的注意事项请参照正文。此外，如果在记载上有与本手册的正文有差异之处，请以正文为准。

1. 未使用的引脚的处理

【注意】将未使用的引脚按照正文的“未使用引脚的处理”进行处理。

CMOS产品的输入引脚的阻抗一般为高阻抗。如果在开路的状态下运行未使用的引脚，由于感应现象，外加LSI周围的噪声，在LSI内部产生穿透电流，有可能被误认为是输入信号而引起误动作。

未使用的引脚，请按照正文的“未使用引脚的处理”中的指示进行处理。

2. 通电时的处理

【注意】通电时产品处于不定状态。

通电时，LSI内部电路处于不确定状态，寄存器的设定和各引脚的状态不定。通过外部复位引脚对产品进行复位时，从通电到复位有效之前的期间，不能保证引脚的状态。

同样，使用内部上电复位功能对产品进行复位时，从通电到达到复位产生的一定电压的期间，不能保证引脚的状态。

3. 禁止存取保留地址（保留区）

【注意】禁止存取保留地址（保留区）

在地址区域中，有被分配将来用作功能扩展的保留地址（保留区）。因为无法保证存取这些地址时的运行，所以不能对保留地址（保留区）进行存取。

4. 关于时钟

【注意】复位时，请在时钟稳定后解除复位。

在程序运行中切换时钟时，请在要切换成的时钟稳定之后进行。复位时，在通过使用外部振荡器（或者外部振荡电路）的时钟开始运行的系统中，必须在时钟充分稳定后解除复位。另外，在程序运行中，切换成使用外部振荡器（或者外部振荡电路）的时钟时，在要切换成的时钟充分稳定后再进行切换。

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Renesas Electronics America Inc.

2880 Scott Boulevard Santa Clara, CA 95050-2554, U.S.A.
Tel: +1-408-588-6000, Fax: +1-408-588-6130

Renesas Electronics Canada Limited

1101 Nicholson Road, Newmarket, Ontario L3Y 9C3, Canada
Tel: +1-905-898-5441, Fax: +1-905-898-3220

Renesas Electronics Europe Limited

Dukes Meadow, Millboard Road, Bourne End, Buckinghamshire, SL8 5FH, U.K.
Tel: +44-1628-651-700, Fax: +44-1628-651-804

Renesas Electronics Europe GmbH

Arcadiastrasse 10, 40472 Düsseldorf, Germany
Tel: +49-211-65030, Fax: +49-211-6503-1327

Renesas Electronics (China) Co., Ltd.

7th Floor, Quantum Plaza, No.27 ZhiChunLu Haidian District, Beijing 100083, P.R.China
Tel: +86-10-8235-1155, Fax: +86-10-8235-7679

Renesas Electronics (Shanghai) Co., Ltd.

Unit 204, 205, AZIA Center, No.1233 Lujiazui Ring Rd., Pudong District, Shanghai 200120, China
Tel: +86-21-5877-1818, Fax: +86-21-6887-7858 / -7898

Renesas Electronics Hong Kong Limited

Unit 1601-1613, 16/F., Tower 2, Grand Century Place, 193 Prince Edward Road West, Mongkok, Kowloon, Hong Kong
Tel: +852-2886-9318, Fax: +852 2886-9022/9044

Renesas Electronics Taiwan Co., Ltd.

13F, No. 363, Fu Shing North Road, Taipei, Taiwan
Tel: +886-2-8175-9600, Fax: +886 2-8175-9670

Renesas Electronics Singapore Pte. Ltd.

80 Bendemeer Road, Unit #06-02 Hyflux Innovation Centre Singapore 339949
Tel: +65-6213-0200, Fax: +65-6213-0300

Renesas Electronics Malaysia Sdn.Bhd.

Unit 906, Block B, Menara Amcorp, Amcorp Trade Centre, No. 18, Jln Persiaran Barat, 46050 Petaling Jaya, Selangor Darul Ehsan, Malaysia
Tel: +60-3-7955-9390, Fax: +60-3-7955-9510

Renesas Electronics Korea Co., Ltd.

11F., Samik Laviel' or Bldg., 720-2 Yeoksam-Dong, Kangnam-Ku, Seoul 135-080, Korea
Tel: +82-2-558-3737, Fax: +82-2-558-5141