

1 序言

首先感谢您选择EZ-CUBE。

EZ-CUBE是一个能够被用于flash存储器编程的片上调试仿真器，可以用于调试程序或将程序烧写到内置Flash存储器微控制器中。

请您首先通读这篇文档；这将使您在使用EZ-CUBE前获得与其相关的一些基本信息，例如准备、启动、支持等。（注意：关于EZ-CUBE的详细使用手册可以在附带的光盘中或者从瑞萨电子的网站上获得）。

<1>检查包装内的组件

包装内应该有EZ-CUBE片上调试仿真器一个，USB一根，目标连接线一条，光盘一张。

如果发现有任何组件丢失或损坏，请咨询瑞萨电子(中国)有限公司的销售代表或者分销商。

<2> EZ-CUBE的产品信息

如想了解EZ-CUBE的具体信息，可访问以下RENESAS Electronics 的网站
<http://cn.renesas.com/index.jsp>

<3>EZ-CUBE软件

我们推荐您使用最新版本的软件。

2 软件安装

在使用EZ-CUBE之前必须安装EZ-CUBE的软件。下面介绍如何安装 RENESAS Electronics 的软件。安装CS+软件前，请先仔细阅读Read me文档。

注意事项：

- 1.安装软件时，请不要使用中文目录名称、中文文件夹以及中文文件名称。
- 2.软件安装完成之后才能将EZ-CUBE 连接到主机。

<1> 插入光盘到光驱。

将CS+下载到PC机，双击进行安装。注意事项：

必须有.NET Framework 4.0 和Visual C++ Libraries 的时间部件(Visual C++ 2010 SP1)。

请在安装CS+前安装这些软件。



图2-1. 安装向导

<2>点击[Begin CS+ Setup]

按安装向导指示，开始安装软件。

2 软件安装

<3> 确认认证协议。

安装程序询问您是否同意认证协议。阅读协议，选择"Accept" 或者"Do not accept"。如果同意，选择"Accept"，然后点击[Next]。如果不同意认证，则不能继续安装。

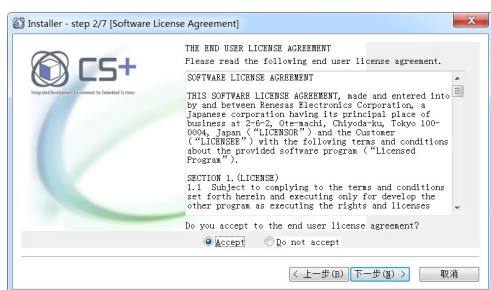


图 2-2. 软件认证协议窗口

<4>选择微控制器和安装位置。

选择想安装开发工具的微控制器的选择框。如果想改变安装地址，可在此时改变。设置完毕后，点击[Next]。

<5>完成安装

当完成所有安装相关的任务，显示安装结果。点击[Finish] 完成安装。

<6>安装USB驱动程序

使用USB 缆连接EZ-CUBE和PC机。根据OS从CD下载USB驱动程序，安装USB驱动。

3 设置和连接硬件

以RL78/G13调试模式为例，其他系列调试或烧写的硬件设置和连接，请参阅EZ-CUBE用户手册。

<1>固件更新

- ①使用USB 缆连接EZ-CUBE和PC。不要将EZ-CUBE与目标板相连。
- ②启动【QBEZUTL.exe】，并指定“RL78_OCD_FW(except G10).hex”固件文件。
- ③点击[Start]按钮，然后指定用于RL78 的固件下载到EZ-CUBE。

<2>开关设置

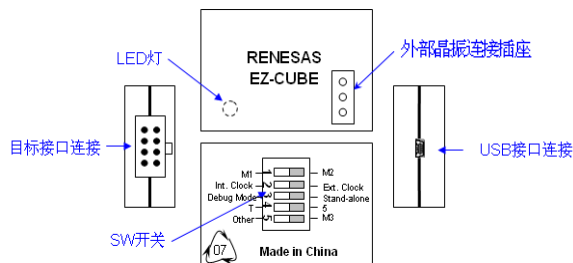
SW-1开关：请选择 “M2”

SW-2开关：请选择 “Int. Clock ”

SW-3开关：请选择 “ Debug Mode”

SW-4开关：请根据实际目标设备使用，参考EZ-CUBE用户手册

SW-5开关：请选择 “Other”



<3>连接目标系统

将EZ-CUBE连接到目标系统，在目标系统打开前确认完成连接。

<4>连接USB 线缆

请在目标系统上电前，将EZ-CUBE连接到主机。当USB 缆与PC 机间连接时，模式灯点亮为红色。

<5>目标系统上电

打开目标系统的电源。如果电源选择为“5”，则这一步并不是必需的。

4 保护用户资源和设置安全ID

在使用EZ-CUBE执行片上调试之前，用户资源（例如，存储器空间）必须保护起来。必须设置安全ID来阻止程序被未经授权的个人读取。如需了解这些设置的细节，请查阅EZ-CUBE用户手册。如果目标设备的flash存储器已经被擦除(整个flash存储器空间全部被写为0xFF)，调试器可以正常启动。这样可以检测目标系统电路设计。flash存储器已经被擦除的设备拥有安全ID“0xFFFFFFFFFFFFFFFFFFFFFFFF”(10字节)。

5 启动调试器

启动调试器。关于启动后的操作，请参阅CS+用户手册。

6 启动编程器

启动编程器Renesas Flash Programmer。关于启动后的操作，请参阅编程器用户手册。

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