AP3-78K0RLX3-EE

Applilet3 for 78K0R/Lx3

Operating Precautions

78K0R/LF3: µPD78F1500, 78F1501, 78F1502

78K0R/LG3: µPD78F1503, 78F1504, 78F1505

78K0R/LH3: µPD78F1506, 78F1507, 78F1508

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A) Table of Operating Precautions for AP3-78K0RLX3-EE

Table A-1 Table description

No.	Outline	AP3-78K0RLX3-EE		
		Version	V1.10	V2.00
A1	Missing API Reference	✘	✓	
A2	TAUx: 0% and 100% duty cycle on PWM not selectable	✘	✘	
A3	Maximum Baudrate in CSImn is set to wrong value	-	✘	
A4	Unused modules not erased from project file	-	✘	
A5	Generated I²C Start condition of SAU function may violate I²C specification	-	✘	
A6	Generated I²C Stop condition of SAU function may violate I²C specification	-	✘	

✓:   Not applicable

✘:   Applicable

- :   Not checked

B) Description of Operating Precautions for AP3-78K0RLX3-EE

Table B-1 No. A1   Missing API Reference

<u>*Details*</u>

The online help consisting of User Guide and API reference is not available.

<u>*Workaround*</u>

To get a list of the possible API functions, please generate an output report. The output report includes two files generated in the project folder:

- function.html -> summary of all API functions
                                (used and unused functions of the current
                                application)
- macro.html   -> summary of all preprocessor symbols

Table B-2 No. A2   TAUx: 0% and 100% duty cycle on PWM not selectable

<u>*Details*</u>

When selecting (multiple) PWM output a duty cycle of 0% or 100% can not be selected in the slave channel menu.

<u>*Workaround*</u>

Call "TAU**x**_Channel**y**_ChangeDuty" with the duty cycle of 0 or 100 as parameter at the beginning of the program.

```
Where x is the TAU and y is the TAU channel number.
```

Table B-3 No. A3   Maximum Baudrate in CSImn is set to wrong value

<u>*Details*</u>

The maximal configurable Baudrate is set to 400000 bps, even if faster Baudrate is possible by the controller settings.

<u>*Workaround*</u>

Manually set up the correct Baudrate after generating Applilet code.

Table B-4 No. A4   Unused modules not erased from project file

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Details

If a peripheral is disabled after it was used and code was generated at least once, the regarding source files are not excluded from the project.

Workaround

Manually exclude / erase the source files from the IAR Embedded Workbench project.

Table B-5 No. A5   Generated I²C Start condition function of SAU may violate I²C specification

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Details

Applilet generated code to send the start condition (`void IICxy_StartCondition(void)`) of an I²C frame does not take care to wait for $t_{HD;STA}$, specified by the I²C specification. The specified wait times are 4µs for Normal and 0.6µs for Fast mode.

Workaround

Set up a wait loop between "clear IICxy SDA" and "clear IICxy SCL", which meets the I²C specification, manually.

Table B-6 No. A6   Generated I²C Stop condition function of SAU may violate I²C specification

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Details

Applilet generated code to send the stop condition (`void IICxy_StopCondition(void)`) of an I²C frame does not take care to wait for $t_{SU;STO}$, specified by the I²C specification. The specified wait times are 4µs for Normal and 0.6µs for Fast mode.

Workaround

Set up a wait loop between "set IICxy SCL" and "set IICxy SDA", that meets the I²C specification, manually.

C) Supported Devices

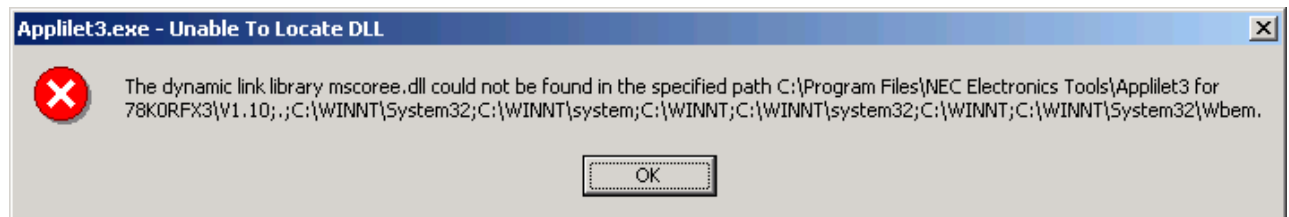| ROM [KB]	78K0R/LF3 80 pins	78K0R/LG3 100 pins	78K0R/LH3 128 pins
128	µPD78F1502	µPD78F1505	µPD78F1843
96	µPD78F1501	µPD78F1504	µPD78F1842
64	µPD78F1500	µPD78F1503	µPD78F150

Supported
Not supported

D) Supported Operating Systems

Applilet supports Windows XP, Windows Vista and Windows 7.
For operation the Microsoft .NET Framework Version 2.0 Redistributable Package is necessary.
If the Microsoft .NET Framework Version 2.0 Redistributable Package is not installed, the following
Windows error message will occur during application start:

Applilet3.exe - Unable To Locate DLL

The dynamic link library mscoree.dll could not be found in the specified path C:\Program Files\NEC Electronics Tools\Applilet3 for 78K0RFX3\V1.10;.,;C:\WINNT\System32;C:\WINNT\system;C:\WINNT;C:\WINNT\system32;C:\WINNT;C:\WINNT\System32\Wbem.

OK

The Microsoft .NET Framework Version 2.0 Redistributable Package can be downloaded from the Microsoft
Corporation WEB Site: http:www.microsoft.com/downloads

Download Package: .NET Framework Version 2.0 Redistributable Package (x86)

And, please use .NET Framework version 2.0 Redistributable package with latest patches.

E) Supported Development Environments

Renesas Electronics Development Tools	
Product Name	**Version**
Project Manager PM+	V6.30 or later
CC78K0	V4.00 or later
RA78K0	V4.01 or later
ID78K0R-QB	V3.10 or later
Device File Package DF78F0588	V2.00 or later

IAR Systems Development Tools	
Product Name	**Version**
Embedded Workbench for 78K EW78K	V4.62a or later

F) Valid Specification

Item	Date published	Document No.	Document Title
1	July 2010	R01UH0004EJ0401	78K0R/Lx3 User's Manual

G) Copyright Notices

H) Revision History

Item	Date published	Document No.	Comment
1	04-Feb-2010	U20235EE1V0IF00	First release.
2	31-May-2010	R20TU0011ED0200_K0RLx3_URN	Update
3	05-Oct-2010	R20TU0011ED0201_K0RLx3_URN	Item A2 added
4	23-Dec-2010	R20TU0011ED0202_K0RLx3_URN	Item A3 and A4 added
5	20-Jun-2011	R20TU0011ED0203_K0RLx3_URN	Item A5 and A6 added

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