

# NEC Microcomputer Technical Information

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IE-789136-NS-EM1 Emulation Board for $\mu$ PD789104A, 789114A, 789124A, 789134A Subseries  Upgrade		Document No.	SBG-TT-0059-E	1/1
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√	Upgrade			
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## 1. Affected product

Product	Outline	Control code <sup>Note</sup>
IE-789136-NS-EM1	Emulation board for $\mu$ PD789104A, 784114A, 789124A, 789134A Subseries	A, B

It is not necessary to upgrade a control code C product.

## 2. Details of upgrade

The specification described below will be added. After upgrading, the control code will be C. See attachment 1 - 3/3 for details.

No.10 Addition of  $\mu$ PD78F9116B and 78F9136B to the supported devices

Control code: A, B

## 3. Upgrade petition period

From February 12, 2002.

The upgrade described herein will be provided for free for a period of one year from the above date. After the free upgrade period expires, upgrade will be available for a fee. You are advised to take advantage of the free upgrade offer during the free upgrade period.

**Note** The "control code" is the second digit from the left in the 10-digit serial number in the warranty supplied with the in-circuit emulator you purchased (if it has not been upgraded). If the in-circuit emulator has been upgraded, a label indicating the new version is attached to the in-circuit emulator and the x in V-UP LEVEL x on this label indicates the control code.

## Notes on Using IE-789136-NS-EM1

### 1. Product Version

Product name: IE-789136-NS-EM1

Control Code <sup>Note</sup>	Remark
A	I/O Eva chip ( $\mu$ PD78F9116CU)
B	I/O Eva chip ( $\mu$ PD78F9116ACU or $\mu$ PD78F9136ACU)
C	I/O Eva chip ( $\mu$ PD78F9136BCU)

**Note** The control code is the second digit from the left of 10-digit production code (serial No.) that start from E. If the in-circuit emulator has been upgraded, a label indicating the new version is attached to the in-circuit emulator and the x in V-UP LEVEL x on this label indicates the control code.

### 2. Product History

No.	Bugs and Changes/Additions to Specification	Control Code		
		A	B	C
1	Restriction on 10-bit A/D converter	×	√	√
2	Restriction on input to port 5	×	√	√
3	Usage restriction on STOP mode	×	√	√
4	Restriction on 16-bit timer (1)	×	×	×
5	Restriction on 16-bit timer (2)	×	×	×
6	Restriction on 8-bit timer (1)	×	×	×
7	Restriction on 8-bit timer (2)	×	×	×
8	Addition of $\mu$ PD78910xA, 911xA, 912xA and 913xA (A product) to the supported devices	×	√	√
9	Restriction on UART	×	×	×
10	Addition of $\mu$ PD78F9116B and 78F9136B to the supported devices	×	×	√

×: Applicable

√: Not applicable (addition of specification)

### 3. Details of Bugs and Additions to Specifications

#### No.1 Restriction on 10-bit A/D converter

[Description]

See the restrictions on the target device for details. (SBG-T-1680-E, SBG-DT-0012-E)

[Workaround]

See the restrictions on the target device for details.

This restriction has been removed in IE-789136-NS-EM1 control code B.

#### No.2 Restriction on input to port 5

[Description]

See the restrictions on the target device for details. (SBG-T-0800-E, SBG-DT-0012-E)

[Workaround]

See the restrictions on the target device for details.

This restriction has been removed in IE-789136-NS-EM1 control code B.

#### No.3 Usage restriction on STOP mode

[Description]

See the restrictions on the target device for details. (SBG-T-0800-E)

[Workaround]

See the restrictions on the target device for details.

This restriction has been removed in IE-789136-NS-EM1 control code B.

#### No.4 Restriction on 16-bit timer (1)

[Description]

See the restrictions on the target device for details. (SBG-DT-0012-E)

[Workaround]

This restriction remains in IE-789136-NS-EM1 control code C.

See the restrictions on the target device for details.

#### No.5 Restriction on 16-bit timer (2)

[Description]

See the restrictions on the target device for details. (SBG-DT-0012-E)

[Workaround]

This restriction remains in IE-789136-NS-EM1 control code C.

See the restrictions on the target device for details.

#### No.6 Restriction on 8-bit timer (1)

[Description]

See the restrictions on the target device for details. (SBG-DT-0012-E)

[Workaround]

This restriction remains in IE-789136-NS-EM1 control code C.

See the restrictions on the target device for details.

#### No.7 Restriction on 8-bit timer (2)

[Description]

See the restrictions on the target device for details. (SBG-DT-0012-E)

[Workaround]

This restriction remains in IE-789136-NS-EM1 control code C.

See the restrictions on the target device for details.

#### No.8 Addition of $\mu$ PD78910xA, 911xA, 912xA and 913xA (A product) to the supported devices

[Description]

A specification to support the  $\mu$ PD78910xA, 911xA, 912xA and 913xA (A product) has been added in IE-789136-NS-EM1 with control code B and later.

#### No.9 Restriction on UART

[Description]

See the restrictions on the target device for details. (SBG-DT-0012-E)

[Workaround]

This restriction remains in IE-789136-NS-EM1 control code C.

See the restrictions on the target device for details.

#### No.10 Addition of $\mu$ PD78F9116B and 78F9136B to the supported devices

[Description]

A specification to support the  $\mu$ PD78F9116B and 78F9136B has been added in IE-789136-NS-EM1 with control code C and later.

## 4. Other Cautions

This product has the following cautions.

- When developing a non-A product target device using the IE-789136-NS-EM1 with control code B or later

When the 8-bit timer is used in PWM mode, write the compare register (CR80) value after the timer operation is stopped.

- Bugs and additions to specifications

Restrictions 1 to 7 and 9 are the restrictions of the target device that apply to the IE-789136-NS-EM1.

Restrictions 4 to 7 and 9 are not scheduled for correction.