

CUSTOMER NOTIFICATION

SUD-DT-03-0326-1-E (1/5)

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CP(K), C

IE-760047-G1-EM1

(Control Code: A, B)

## Operating Precautions

Be sure to read this document before using the product.

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## Notes on Using IE-760047-G1-EM1

### 1. Product Version

Control Code	Board Version	Remark
A	V1.00	IC1: $\mu$ PD76F0047 ES1.0
B	V1.11	IC1: $\mu$ PD76F0047 ES1.0 2-board configuration (SS-71253)

Employ an IE-V850ES-G1 with a control code of C or later when using this emulation board.

### 2. Production History

No.	Bugs and Changes/Additions to Specifications	Control Code <sup>Note</sup>	
		A	B
1	ROM correction function cannot be emulated	Permanent restriction	
2	Restriction on use-prohibited area	Permanent restriction	
3	Restriction on pin output voltage	×	√
4	Restriction on port mode control register	Permanent restriction	
5	Restriction on execution of conditional branch instruction	×	√
6	Restriction on external interrupt	×	√

×: Applicable, √: Not applicable or already corrected

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

### 3. Details of Bugs and Added Specifications

No.1 ROM correction function cannot be emulated

[Description]

The ROM correction function cannot be emulated.

[Workaround]

There is no workaround. Regard this as a permanent restriction.

No.2 Restriction on use-prohibited area

[Description]

A fail-safe break does not occur even if the program is executed or an access occurs in 0x3FF0000 to 0x3FF8FFF in the use-prohibited area of the target device.

Whether the above address is accessed or not can be checked in the compiler if the above address is specified for the operand.

This restriction is applicable when the address is specified indirectly via an operation, etc.

[Workaround]

A break can be generated when the program is executed or an access occurs by setting a break on the debugger under the following conditions.

- Detects program execution at 0x3FF0000 to 0x3FF8FFF
  - Event status: Execution
  - Address: 0x3ff0000 to 0x3ff8fff

(Two execution events are used by setting the above conditions.)
- Detects access for 0x3FF0000 to 0x3FF8FFF
  - Event status: R/W
  - Access size: No Condition
  - Address: 0x3ff0000 to 0x3ff8fff

(Two access events are used by setting the above conditions.)
- Detects program execution at 0xC0000 to 0xFFFFF
  - Event status: Execution
  - Address: 0xC0000 to 0xffff

(Two execution events are used by setting the above conditions.)
- Detects access for 0xC0000 to 0xFFFFF
  - Event status: R/W
  - Access size: No Condition
  - Address: 0xC0000 to 0xffff

(Two access events are used by setting the above conditions.)

Regard this as a permanent restriction.

## No.3 Restriction on pin output voltage

## [Description]

The Hi output voltages of each pin are as follows.

(There is no problem when N-ch open-drain output is selected.)

- Ports at which the Hi output voltage is fixed to 3.6 V

Ports 02 to 06

Ports 30 to 39 and their alternate-function pins

Ports 40 to 42 and their alternate-function pins

Ports 50 to 55 and their alternate-function pins

Ports 90 to 915 and their alternate-function pins

Ports CS0 to CS5 and their alternate-function pins

- Pins at which the Hi output voltage is in the mid voltage potential between 3.6 V and EVDD

Ports CM0 to CM3 and their alternate-function pins

Ports CT0 to CT1, port CT4, port CT6, and their alternate-function pins

Ports DH0 to DH5 and their alternate-function pins

Ports DL0 to DL15 and their alternate-function pins

## [Workaround]

There is no workaround. This restriction has been corrected in control code B or later.

## No.4 Restriction on port mode control register

## [Description]

A bit fixed to 1 (input) in the port mode control register cannot be written in the target device. If 0 (output) is written to a bit fixed to 1 (input) in the emulator, the value is replaced by 0.

Register Name \ Bit	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
PMCM	√	√	×	×	√	√	√	√
PMCS	×	×	√	√	√	√	√	√
PMCT	×	√	×	√	×	×	√	√
PMDH	×	×	√	√	√	√	√	√

√: The same operation as the target device

×: Bit to which the restriction applies

## [Workaround]

There is no workaround. Regard this as a permanent restriction.

## No.5 Restriction on execution of conditional branch instruction

## [Description]

When a conditional branch instruction is executed, the program may branch to an illegal PC address.

## [Workaround]

There is no workaround. This restriction has been corrected in control code B or later.

No.6 Restriction on external interrupt

[Description]

When an interrupt is input from an external pin, the interrupt may not be acknowledged normally.

[Workaround]

There is no workaround. This restriction has been corrected in control code B or later.

#### **4. Cautions**

No.1 Caution on ID703000 (ID850)

[Description]

Use V2.51 or later when using the IE-760047-G1-EM1 with the NEC Electronics debugger.