

To our customers,

---

## Old Company Name in Catalogs and Other Documents

---

On April 1<sup>st</sup>, 2010, NEC Electronics Corporation merged with Renesas Technology Corporation, and Renesas Electronics Corporation took over all the business of both companies. Therefore, although the old company name remains in this document, it is a valid Renesas Electronics document. We appreciate your understanding.

Renesas Electronics website: <http://www.renesas.com>

April 1<sup>st</sup>, 2010  
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

Send any inquiries to <http://www.renesas.com/inquiry>.

# MESC TECHNICAL NEWS

No. M16C-39-9911

## M16C Family

### Cautions for “Event counter mode” with Timer A

#### 1. Affected devices

- M16C/80 Group, M16C/60 Group, M16C/61 Group, M16C/62 Group (Included 3V version)
- M16C/62A Group (Included 3V version), M16C/6N Group, M16C/6K Group, M16C/6V Group
- M16C/6H Group, M16C/21 Group, M16C/24 Group

#### 2. Cautions

In the case of using “Event counter mode” as “Free-Run type” for timer A, the timer register contents may be unknown when counting begins. If the timer register is set before counting has started, then the starting value will be unknown.

This issue will occur only for the “Event counter mode” operating as “Free-Run type”. The value of the timer register will not be unknown during counting.

#### 3. Countermeasure

(1) In the case where the up/down count will not be changed.

Enable the “Reload” function and write to the timer register before counting begins. Rewrite the value to the timer register immediately after counting has started.

If counting up, rewrite “0000<sub>16</sub>” to the timer register.

If counting down, rewrite “FFFF<sub>16</sub>” to the timer register.

This will cause the same operation as “Free-Run type” mode.

(2) In the case where the up/down count has changed.

First set to “Reload type” operation. Once the first counting pulse has occurred, the timer may be changed to “Free-Run type”.