

To our customers,

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## Old Company Name in Catalogs and Other Documents

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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.

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# MESC TECHNICAL NEWS

No. M7700-70-0006

## Notes on Using A-D Converters of 7700/7751/7900 Series MCUs

### 1. Affected MCUs

All of the 7700, 7751, and 7900 Series MCUs

### 2. Notes

(1) Make sure the writing to the following bits is performed with the A-D converter stopped:

- Bits 0 through 5 and 7 of the A-D control register 0 (address 1E<sub>16</sub>)
- All bits of the A-D control register 1 (address 1F<sub>16</sub>)

(2) Be sure not to overwrite bit 6 of the A-D control register 0 with “1” while the A-D converter is operating.

### 3. Reasons

(1) If the writing to one of the following bits is performed while the A-D converter is operating, this A-D converter will not operate correctly.

- Bits 0 through 5 and 7 of the A-D control register 0
- All bits of the A-D control register 1

(2) If bit 6 of the A-D control register 0 is overwritten with “1” while the A-D converter is operating, the writing to the other bits of this register will also be performed at this time, causing the A-D converter to malfunction.

### 4. Supplementary Notes

The following bits are also affected by the above notes under the conditions described below. Accordingly, make sure the writing to these bits is not performed while the A-D converter is operating.

(a) Conditions: single sweep and repeat sweep modes

Bits: bits 0 through 2 of the A-D control register 0

(b) Conditions: one-shot and repeat modes

Bits: bits 0 and 1 of the A-D control register 1

Either value of “0” and “1” written to each bit described in (a) and (b) does not affect the operation of the A-D converter as long as it is written while A-D converter is stopped; otherwise, it will affect the operation of the A-D converter. (That is to say, A-D conversion will not be performed correctly.)