

To our customers,

Old Company Name in Catalogs and Other Documents

On April 1st, 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>

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Renesas Electronics Corporation

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RENESAS TECHNICAL UPDATE

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Product Category	MPU & MCU	Document No.	TN-16C-A179A/E	Rev.	1.00
Title	M16C/65, M16C/64A, M16C/64 Groups Flash Memory Notes on Slow Read Mode	Information Category	Technical Notification		
Applicable Products	M16C/65, M16C/64A, M16C/64 Groups	Lot No.	Reference Documents	See below	
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1. Note

The hardware manuals listed below state that slow read mode (the FMR22 bit in the FMR2 register is 1 and FMR23 bit is 0) can be used when f(BCLK) is 5 MHz or below. However, flash memory may not be read correctly in this condition, and that will lead the program on flash memory not to be executed as expected.

M16C/64 Group Hardware Manual Rev.1.05

M16C/64A Group Hardware Manual Rev.1.01

M16C/65 Group Hardware Manual Rev.1.00

2. Countermeasure

Use slow read mode under the following condition:

When selecting the PLL clock, main clock, or 40 MHz on-chip oscillator clock as the CPU clock source, set f(BCLK) to 5 MHz or below and the PM17 bit in the PM1 register to 1 (one wait).

However, a wait need not to be inserted when using the 125 kHz low-speed on-chip oscillator clock or subclock.