

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.

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

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Renesas Electronics Corporation

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

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# RENESAS TECHNICAL UPDATE

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Product Category	Application specific IC		Document No.	TN-ASP-A018A/E	Rev.	1.0
Title	Usage Precautions for terminating FIFO writing by asserting the DNED pin of M66591GP		Information Category	Technical Notification		
Applicable Product	USB ASSP M66591GP	Lot No.	Reference Document	-		
		ALL				

## 1. Phenomena

This precaution concerns the write access to the DMA\_FIFO port of IN-PIPE.

When the conditions described in [2. Occurring Conditions] below are met, the last 8 bytes written to the DMA\_FIFO port of IN-PIPE may not be written correctly and the last 8bytes of the packet which transmit to HOST may be incorrect.

This precaution applies for both access via the CPU bus and the Split bus. Also, this precaution is independent on USB transfer speed.

## 2. Occurring Conditions

[1. Phenomena] described above may occur when condition 1 is present at the same time as condition 2 or 3.

Condition 1: The DEND pin is asserted to terminate the writing access to send a multiple of 8-byte length short packet data via the DMA\_FIFO port of IN-PIPE.

Condition 2: The FIFO buffer of IN-PIPE is being used as a double buffer.

Condition 3: There is USB communication on the other PIPEs when the FIFO buffer of IN-PIPE is being used as single buffer.

## 3. Solutions

This phenomenon can be avoided by using the following solutions.

Instead of asserting the DEND pin, set BVAL bit of "D0\_FIFO Port Control Register 2" to "1" by software to terminate the data writing, when the writing a multiple of 8-byte length short packet data to the DMA\_FIFO port of IN-PIPE.