

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>

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

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

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# RENESAS TECHNICAL NEWS

No.ASSP-05-0309

M66291 Oscillator Limitations

**Classification**

Corrections and supplementary explanation of document

- √ Notes
- Knowhow
- Others

**Concerned Products**

USB ASSP M66291GP/M66291HP

1. Phenomenon

Compared to the IOVcc = 3.3V system, the IOVcc = 5V system has a larger supply power variation, which results in a larger frequency variation of the internal clock when using a low frequency oscillator (Xin = 6MHz or 12MHz). The larger frequency variation may create unstable USB transfer signals for the M66291.

2. Occurring Conditions

This limitation does not affect IOVcc = 3.3 V systems.

When both of the following conditions are present, the above-described phenomenon may occur.

- (1) IOVcc = 5V system
- (2) Xin = 6MHz or Xin = 12MHz system

3. Solutions

Use either Xin = 24MHz or Xin = 48MHz system with the IOVcc = 5V system.