

# ES\_P89LPC9171

## Errata sheet P89LPC9171

Rev. 01 — 5 February 2010

Errata sheet

### Document information

| Info            | Content  |
|-----------------|--|
| <b>Keywords</b> | P89LPC9171 errata  |
| <b>Abstract</b> | <p>This errata sheet describes both the known functional problems and any deviations from the electrical specifications known at the release date of this document.</p> <p>Each deviation is assigned a number and its history is tracked in a table at the end of the document.</p> |



## Revision history

| Rev | Date     | Description |
|-----|----------|-------------|
| 01  | 20100205 | Added ADC.1 |

## Contact information

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## 1. Product identification

The P89LPC9171 devices typically have the following top-side marking:

P89LPC9171 x x

xxxxxxx xx

xxYYWW R

The last letter in the last line (field 'R') will identify the device revision. This Errata Sheet covers the following revisions of the P89LPC9171:

**Table 1. Device revision table**

| Revision identifier (R) | Revision description    |
|-------------------------|-------------------------|
| '-'                     | Initial device revision |

Field 'YY' states the year the device was manufactured. Field 'WW' states the week the device was manufactured during that year.

## 2. Errata overview

**Table 2. Functional problems table**

| Functional problems | Short description                                 | Revision identifier | Detailed description                  |
|---------------------|---|---------------------|---------------------------------------|
| ADC.1               | Single step mode multi channel boundary interrupt | '-'                 | <a href="#">Section 3.1 on page 4</a> |

**Table 3. AC/DC deviations table**

| AC/DC deviations | Short description | Revision identifier | Detailed description |
|------------------|-------------------|---------------------|----------------------|
| n/a              | n/a               | n/a                 | n/a                  |

### 3. Functional problems detail

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#### 3.1 ADC.1: Single Step mode multi channel boundary interrupt

**Introduction:**

The ADC on the P89LPC9171 is an Analog to Digital converter with 8 bits of resolution. The ADC has features such as a Single Step mode where the ADC will step through the selected channels on each ADC start condition.

**Problem:**

When the ADC is in Single Step mode with more than 1 channel selected, and a boundary interrupt occurs to any of the lower selected channel-bits, a write to the ADMODA register to clear the BNDI bit before all the selected channels are converted will reset the channel selection counter and the ADC will go back and wait at the lowest selected channel for the next conversion. This applies to ADC1 on the P89LPC9171.

**Work-around:**

1. Clear the lower channel bits including the boundary interrupted channel in ADCINS register before the next start request.
2. Use the default boundary channel, not clear BNDI bit until all channels are converted.

### 4. AC/DC deviations detail

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#### 4.1 No known errata

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