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Application Note AN 152
Rastislav Hindak

Title: Data bus instability by Read Access to the last word in page in AS8202NF

Subject: Hardware Bug

Description:

Subsequent host read access to 'second last word in page' and 'last word in page' can result in data bus instability for the 'last word in page' read access while READYB is '0'.

Detailed Bug Description:

After a host read access to 'second last word in page' an internal read ahead access is started from the 'last word in page' and the data is valid for 32 * Tc (period of internal AS8202NF clock @ 40 MHz).

If within this time window (32 * Tc) the internal PCU changes the data in the 'last word in page' and a subsequent host read access to 'last word in page' happens, this bug may occur.

Conclusion, Work-around:

There are 3 possibilities to work-around this bug:

1) the last word of each page has to be spared from the schedule (MEDL) so that the host never reads data from these CNI addresses OR
2) write access to any RAM location or to page "Nirwana" (page 0x18, with no impact) after the host read access to 'second last word in page' OR
3) in the application to program the host to introduce break between 'second last word in page' and 'last word in page' read accesses longer than 32 * Tc

Note: Using host software provided by TTTech, this bug will not occur.