ERRATA NOTES

CC2480
(formerly CCZACC06)

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1 Received Frames May be Lost

1.1 Bug Description

There is a chance that received frames are flushed before they are processed by the higher levels of the IEEE 802.15.4 MAC. On a rare occation, these frames may also have been acknowledged by the CC2480, and the transmitter in effect receives a false acknowledgment. This is, however, fairly common in an IEEE 802.15.4 / ZigBee network as the only thing that separates one acknowledgment frame from another is the 8-bit sequence number. In most cases this will be handled seamlessly by the transmitter.

1.2 Batches Affected

This bug affects all batches and revisions of the chip.

2 CC2480 May Not Enter LPM While Waiting for Aps Ack

2.1 Bug Description

When CC2480 is set up as an End Device and is sending Application Data to another node in the network, the normal (simplified) send procedure is the following when application acknowledgement is enabled:

a) Send packet

b) Receive MAC ACK

c) Enter Low Power Mode

d) Wake up after ZCD_NV_RESPONSE_POLL_RATE

e) Send data request

f) Receive MAC ACK

g) Receive APS ACK

h) Enter Low Power Mode

In some cases, the CCZACC may not enter low power mode in step c).

2.2 Suggested Workaround

Reduce the value of ZCD_NV_RESPONSE_POLL_RATE to a minimum such that the impact of the increased current consumption is negligible. Note that the response poll rate should be set according to the expected round-trip time.

ZCD_NV_RESPONSE_POLL_RATE is one of the configuration parameters of CC2480 that can be modified by using the ZB_WRITE_CONFIGURATION command.

Another workaround would be to turn application acknowledgement off. Then CC2480 will always return to low power mode immediately after having sent the packet and received the MAC ACK.

It is also possible to envision a scenario where application acknowledgement is turned on only for every n'th packet, where n would depend on the required reliability of the system.

2.3 Batches Affected

This bug affects all batches and revisions of the chip.

3 Document History

Revision	Date	Description/Changes
SWRZ027	2008-04-07	First version for release

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