OAM Unbaselined Details

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What Happened So Far

- OAM mechanism baselined Motion #9
  http://www.ieee802.org/3/ch/public/nov18/motions_3ch_01a_1118.pdf
- OAM symbols are sent both in normal mode and LPI
- Details of how entering and exiting LPI not fully defined yet
- This may cause OAM corner case when exiting LPI
- I took some liberties to address corner case when drafting the D1.0 text instead of waiting until after January
- Need to accept this (or reject) in comment resolution

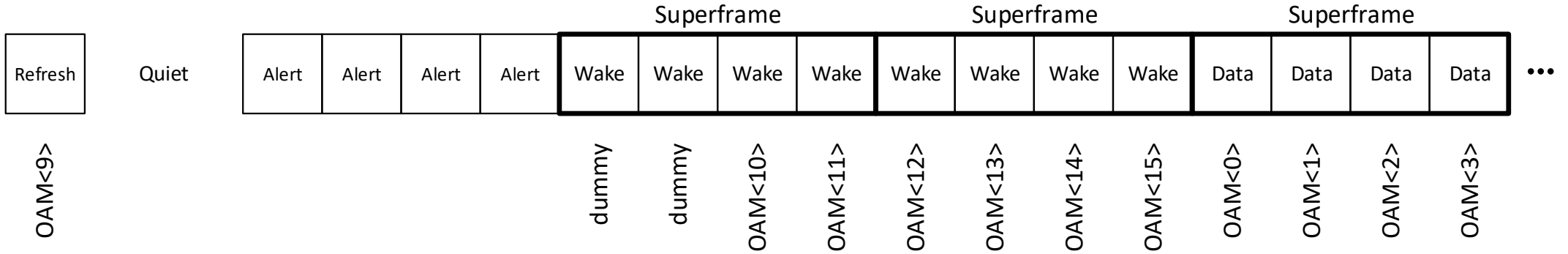
Corner Case

- 16 OAM symbols aligned with super frames
  - 4X interleave – OAM frame fits into 4 super frames
  - 2x interleave – OAM frame fits into 8 super frames
  - 1x interleave – OAM frame fits into 16 frames
- In LPI 1 OAM symbol per refresh during LPI

- When exiting LPI without having sent the full OAM frame will cause misalignment to super frame if nothing is done

Example

- Only 10 OAM symbols sent before wake in 4x interleave case
- OAM symbols will not be aligned to super frame if dummy is not sent



Text in D1.0

- Need to approve D1.0 Page 99 line 37 to Page 100 line 17 in January meeting

When the PCS frame is operating in interleaved mode of 2x or 4x, the first symbol (OAM<0>) shall be inserted in the first RS frame in the super frame so that the full OAM frame can packed into 8 super frames in the 2x interleave mode, and into 4 super frames in the 4x interleave mode.

When transitioning from normal operation to low power idle, it may be possible that part of the OAM frame is packed in RS frames and the remainder of the OAM frame is sent over the LPI refreshes.

When transitioning from low power idle to normal operation, it may be possible that part of the OAM frame is sent over the LPI refreshes and the remainder of the OAM frame is packed in RS frames. In some instances, it is possible that the remainder of the OAM frame cannot be aligned where the next OAM frame will have its first symbol (OAM<0>) inserted in the first RS frame of the super frame. In such cases, the partially transmitted OAM frame shall be interrupted according to the following rules.

1x interleaving - No interruption is required.

2x interleaving - insert 0 or 1 dummy OAM symbol into the super frame for alignment before continuing.

4x interleaving - insert 0 to 3 dummy OAM symbol into the super frame for alignment before continuing.

The receiver can anticipate when the dummy OAM symbols will be inserted based on the sequence of refresh and wake events.

An example in Figure 149–13 shows two dummy OAM symbols inserted to realign OAM<0> to the 4x interleaved super frame boundary.

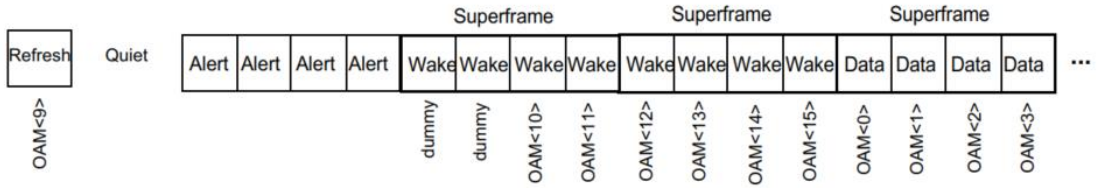


Figure 149–13—Example of 4x interleave dummy data insertion

THANK YOU