

Dear Jamshid

Thank you for your Liaison letter dated July 5<sup>th</sup>, 2002 (BRAN 29d120) in which you requested that 802.16a review the recent or updated ETSI BRAN HIPERMAN decisions with a view to adopting them in our own Draft Standard. We appreciate the ongoing liaison between our two groups and attach the results of our review. We respectfully request that BRAN reconsider its decisions on those items where we do not have agreement.

We look forward to your next progress report in the interests of harmonising our two standards for global benefit.

Yours sincerely

Roger Marks

**REVIEW OF ETSI BRAN REQUESTS TO AMEND 802.16A DRAFT 4 ([P80216A/D4](#))**

**(ref. Liaison Letter BRAN 29d120)**

- 1. HIPERMAN decided that it rejects the new optional OFDMA permutation for AAS (the permutation formerly rejected as OFDMA2 PHY) as it fails to discern its technical merits.**

IEEE 802.16a rejected this proposal and the adjacent carrier permutation will therefore remain in the IEEE 802.16a Draft Standard.

- 2. To upgrade the working assumption on the sub-channelization enhancement for the OFDM PHY, which we notified you of in our previous letter, to a decision. The necessary changes are documented in BRAN29d116r1**

Under reconsideration, this proposed option failed to gain sufficient support within IEEE 802.16a.

- 3. To adopt the editorial restructuring of the draft according to BRAN29d040 (containing the same changes as C802.16a-02/67).**

IEEE 802.16a has adopted C802.16a-02/67 as the basis for the proposed 802.16a D5 Draft and all the resolved comments from D4 will be adapted and integrated into the restructured Draft.

- 4. To change the trellis termination to "zero-tail" at the end of each allocation, rather than tail-biting per OFDM symbol.**

Under reconsideration, this proposed option failed to gain sufficient support within IEEE 802.16a.

- 5. To allow the frame duration for PMP to vary between 4 and 20 ms as a multiple of OFDM DL symbols, rather than create a number of fixed values.**

IEEE 802.16a has rejected the HIPERMAN proposal for determining frame duration, and has retained the current minimum value of 2ms and maximum value of 10ms.

- 6. To make various minor corrections as documented in BRAN29d116r1**

Ten items were accepted, some with minor modifications, and two were rejected. Details are provided below. They are numbered as per BRAN 29d116r1:

4. Add in section 8.3.3.3.1:

In FDD mode, a HFDD terminal will not receive data before the start of a new frame, after it has transmitted.

vote: unanimous acceptance

5. Add in section 8.3.3.3.2.2.3:

Subsequent AAS bursts shall include a short preamble.

vote: unanimous acceptance

6. Accepted .

7. Delete in table 259, the line with the Frame Duration Code.

vote: unanimous acceptance

8. Replace in 8.3.3.2.4.2 the first sentence with:

"Rate\_ID's, which indicate modulation and coding to be used in the first DL burst immediately following the FCH, are shown in Table 214."

Fix also for OFDMA

vote: unanimous acceptance

9. Renumber FEC Code Type in Table 260 for OFDM to make them consistent with table 214:

0=QPSK(RS+CC) \_

...

5=QAM-64(RS+CC) \_

Fix also for OFDMA

Add also CTC numbers for all PHYs

vote: unanimous acceptance

10. Delete the row defining the Cyclic Prefix in Table 260.

vote: unanimous acceptance

11. Under Table 220, add to the description of "Length":

"The minimum value of the Length parameter shall be 6."

vote: 9 in favor, 1 opposed

12. Delete in Table 221 the parameter Allocation\_Start\_Time.

Vote: 8 in favor, 14 opposed

13. Replace in sections 8.3.3.2.7.2 and 8.3.3.2.7.3 "message" by "OFDM DL preamble"

Replace "message" with "DL preamble" for SCa as well.

vote: unanimous acceptance

14. In Table 227, change offset into duration and change definition into:  
Duration

The duration indicates the duration, in units of OFDM symbols, of the burst. The first burst starts from the Allocation\_Start\_time.

remove 14 from the UCD burst profile encodings

State somewhere that the CP defined in the DCD shall also be used on the UL.

vote: unanimous acceptance

15. Replace the first line of 8.3.3.3.4.2.1:

The encoding is performed by first passing the data in block format through the RS encoder and then pass it through a convolutional encoder. Eight tail bits are introduced at the end of each allocation. In the RS encoder, the redundant bits are sent before the input bits, keeping the tail bits at the end of the allocation.

vote: in favor 15

against 10