Corrections for PRBS Operation in AAS Zone with Diversity Map Support

Purpose
Adoption of suggested changes into IEEE P802.16-2004/Co1/D4

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**Introduction**

In the current text, SS should blind scan for AAS-DLFPs in Diversity Map zone with all possible locations and permutation type. This task becomes more complex if we add ambiguity from PRBS sequences. Consequently, for the proper operation of AAS Diversity Map, the definition of initialization vector of PRBS sequences and symbol offset for PRBS generation should be clarified. In this contribution, we propose the text for this purpose.

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**Motivations**

The initialization vector of PRBS sequences and symbol offset for PRBS in AAS zone with Diversity Map should be determined by frame-starting DL preamble because AAS Diversity Map is intended for SS which do not see the DL-Map (although synchronized with frame-starting DL preamble).

**Propose solution**

1. Indicate the presence of Diversity Map in AAS_DL_IE.

2. The initialization vector of the PRBS in 8.4.9.4.1 is fixed as the same way as in the first downlink zone in the downlink AAS zone with Diversity Map support.

3. The PRBS symbol offset in the downlink AAS zone with Diversity Map support is counted from the first symbol of the first downlink zone.
**Detailed Text Changes**

[Modify at line 51 p. 106 in AAS_DL_IE]

```
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>reserved</td>
<td>2 bits</td>
<td>Shall be set to zero</td>
</tr>
<tr>
<td>Diversity Map</td>
<td>1 bit</td>
<td>0: Not Supported in this AAS zone</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1: Supported in this AAS zone</td>
</tr>
<tr>
<td>reserved</td>
<td>1 bit</td>
<td>Shall be set to zero</td>
</tr>
</tbody>
</table>
```

[Insert the text at line 58 and 63 p.166]

b0 .. b4 = Five least significant bits of IDell as indicated by the frame preamble in the first downlink zone and in the downlink AAS zone with Diversity_Map support, DL_Permbase following STC_DL_Zone_IE() and 5 LSB of DL_Permbase following AAS_DL_IE without Diversity_Map support in the downlink.

b5 .. b6 = Set to the segment number + 1 as indicated by the frame preamble in the first downlink zone and in the downlink AAS zone with Diversity_Map support and the 2 LSBs of PRBS_ID as indicated by the STC_DL_Zone_IE() or AAS_DL_IE() without Diversity_Map support in other downlink zones, 0b 11 in the uplink.

[Insert the text at line 15 p.167]

.. where symbol offset is counted from the first symbol in each zone as zero in the downlink except downlink AAS zone with Diversity_Map support where the symbol offset is counted from the first symbol of the first downlink zone as zero and from Allocation start time in the uplink.