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| Title                        | Threshold in the DCD message  |
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| Abstract                     | Correction of the DCD message and threshold parameters  |
| Purpose                      | Adopt changes.  |
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## DCD thresholds

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### 1. Motivation

Burst profile selection is an important feature of the 802.16 system, since adaptive modulation combines advantage of the extended coverage of the most robust burst profile with the extra capacity of the most efficient burst profile.

The current text specifies that the downlink burst profile is selected by the SS based on a comparison of its received CINR with entry and exit thresholds mandated by the BS.

This is not a very efficient mechanism, because it is based on CINR measurements only, and other information only known by the SS could justify burst profile changes. Also it compromises the correct operation of the downlink burst profile selection because the BS doesn't know the time period value used by the SS to update CINR measures. This could result in a loss of the downlink channel if the SS is not able to require a more robust PHY mode because the margins dictated by the BS are too low for that SS (its CINR updating period is too large).

The proposed change applies to all the PHYs. Since the thresholds have already been deleted from the OFDMA PHY (comments #84) the following correction are proposed:

### 2. Text change

Page 202, line 26, section 6.3.10.1

The SS ~~applies an algorithm to~~ has full responsibility to determine its optimal burst profile ~~in accordance with the threshold parameters established in the DCD message in accordance with Figure 81.~~

Page 204, line 50, section 6.3.10.1, delete Figure 81

Page 316, line 61, section 8.1.4.1.2.5

~~DIUC mandatory exit threshold~~  
~~DIUC minimum entry threshold~~

Page 394, line 46, section 8.2.1.5.1.3

~~DIUC mandatory exit threshold~~  
~~DIUC minimum entry threshold~~

Page 396, line 51, section 8.2.1.5.2.1

~~DIUC mandatory exit threshold~~  
~~DIUC minimum entry threshold~~

Page 666, line 26, Table 358

|  |                               |              |   |
|--|-------------------------------|--------------|---|
| <del>DIUC mandatory exit threshold</del> | <del>15</del><br><del>9</del> | <del>+</del> | <del>CINR at or below which this DIUC can no longer</del> |
|--|-------------------------------|--------------|---|

|                              |         |   |  |
|------------------------------|---------|---|--|
|                              |         |   | be used and at which a change to a more robust DIUC is required, in 0.25 dB units. See Figure 81.                                      |
| DIUC minimum entry threshold | 16<br>0 | 1 | The minimum CINR required to start using this DIUC when changing from a more robust DIUC is required, in 0.25 dB units. See Figure 81. |

Page 667, line 7, Table 359

|                               |         |   |   |
|-------------------------------|---------|---|---|
| DIUC mandatory exit threshold | 15<br>3 | 1 | 0-63.75 dB CINR at or below where this DIUC can no longer be used and at which a change to a more robust DIUC is required, in 0.25 dB units. See Figure 81. |
| DIUC minimum entry threshold  | 15<br>4 | 1 | 0-63.75 dB The minimum CINR required to start using this DIUC when changing from a more robust DIUC is required, in 0.25 dB units. See Figure 81.           |

Page 668, line 18, Table 360

|                               |         |   |   |
|-------------------------------|---------|---|---|
| DIUC mandatory exit threshold | 15<br>1 | 1 | 0-63.75 dB CINR at or below where this DIUC can no longer be used and at which a change to a more robust DIUC is required, in 0.25 dB units. See Figure 81. |
| DIUC minimum entry threshold  | 15<br>2 | 1 | 0-63.75 dB The minimum CINR required to start using this DIUC when changing from a more robust DIUC is required, in 0.25 dB units. See Figure 81.           |