

Project	IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 >	
Title	Comment on Final Draft DL MIMO SDD text: Analog Feedback for SU/MU/Multi-cell MIMO	
Date Submitted	2008-07-15	
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Re:	Call for Comments on the DL-MIMO Rapporteur group final draft: C802.16m-08/657r2.	
Abstract	Proposed text for Analog Feedback	
Purpose	To be discussed and adopted by 802.16m SDD.	
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Comment on Final Draft DL MIMO SDD text: Analog Feedback for SU/MU/Multi-cell MIMO

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Contributions C80216m-08_529r1, C80216m-08_526r1, C80216m-08_522r1, C80216m-08_372r3 and S80216m-08_273 discuss the advantages and technical details of analog feedback and show simulation results.

We propose to add analog feedback in addition to the current codebook based feedback. Several methods proposed providing a tradeoff between feedback overhead and channel information

Proposed Text**11.x.2.1.3. Feedback for SU-MIMO**

Add to current text on line 15:

For analog based feedback the following options may be supported in FDD or TDD:

1. Channel matrix
2. Average channel covariance matrix
3. Average right strongest singular vector or vectors
4. Average singular values ratio (for 2 receive antenna subscriber)

11.x.2.2.3.2 CSI Feedback

Add to current text on line 20 :

Analog based feedback for TDD and FDD may be supported with the following options:

1. Channel matrix
2. Average channel covariance matrix
3. Average right strongest singular vector or vectors
4. Average singular values ratio (for 2 receive antenna subscriber)

11.x.4.2 Multi-cell MIMO

Add to current text on line 13 before the sentence that starts with ‘ The feedback information...’ :

Analog based feedback for TDD and FDD may be supported with the following options:

1. Channel matrix
2. Average channel covariance matrix
3. Average right strongest singular vector or vectors
4. Average singular values ratio (for 2 receive antenna subscriber)