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	**2008-07-13**
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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.
Notice	*This document does not represent the agreed views of the IEEE 802.16 Working Group or any of its subgroups*. It represents only the views of the participants listed in the "Source(s)" field above. It is offered as a basis for discussion. It is not binding on the contributor(s), who reserve(s) the right to add, amend or withdraw material contained herein.
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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.

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)