

Project	IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 >	
Title	Proposed SDD text: Hybrid Analog/Digital Feedback for CL-MIMO	
Date Submitted	2008-09-05	
Source(s)	Ron Porat - Nextwave	Voice: E-mail: rporat@nextwave.com ; < http://standards.ieee.org/faqs/affiliationFAQ.html >
Re:	PHY: MIMO; in response to the TGm Call for Contributions and Comments 802.16m-08/033 for Session 57	
Abstract	Proposed text for Hybrid Analog/Digital Feedback for inclusion in chapter 11	
Purpose	To be discussed and adopted by 802.16m SDD.	
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Proposed SDD text: Hybrid Analog/Digital Feedback for CL-MIMO

Ron Porat

Nextwave

Contribution C80216m-08_914 explains the advantages and technical details of the hybrid analog/digital feedback proposal for CL-MIMO.

We propose to add hybrid analog/digital feedback to 802.16m.

Proposed Text

Add the following text to three sections outlined below.

A hybrid feedback scheme whereby a mobile station feeds back the PMI in a digital fashion and the residual unquantized error relative to the channel right singular vector(s) in an analog fashion is supported. A base station receiving both PMI and the analog error can add the two to construct a more accurate precoder.

The feedback for antenna configurations for which a codebook is not defined, consists of feeding back in an analog fashion the strongest singular vector(s).

11.8.2.1.3. Feedback for SU-MIMO

Add to current text on line 18:

11.8.2.2.3.2 CSI Feedback

Add to current text on line 28:

11.8.4.1 Multi-cell MIMO

Add to current text on line 32 at the end of the first sentence: