Project	IEEE 802.16 Broadband Wireless Access Working Group http://ieee802.org/16 Proposed harmonized text for DL MIMO SDD text: Differential Codebook for SU-MIMO	
Title		
Date Submitted	2008-07-09	
Source(s)	Bruno Clerckx, David Mazzarese Samsung Electronics	E-mail: bruno.clerckx@samsung.com, d.mazzarese@samsung.com,
	Jun Yuan, Mo-Han Fong, Hosein Nikopourdeilami, Sophie Vrzic, Robert Novak, Dongsheng Yu	Email: junyu@nortel.com, mhfong@nortel.com
	Nortel Networks	
	Amir Khojastepour, Meilong Jiang, Yuefeng Zhou	Email: amir@nec-labs.com, meilong@nec-labs.com, yuefeng.zhou@eu.nec.com
	NEC	
	Yang Tang, Young Hoon Kwon, Jianmin Lu, Yinggang Du	Email: ytang@huawei.com
	Huawei	
Re:	IEEE 802.16m-08/024 - Call for Comments on DL MIMO SDD text	
Abstract	This contribution proposes harmonized SDD text for differential codebook for SU-MIMO.	
Purpose	To be discussed and adopted by TGm for use in the IEEE 802.16m SDD	
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Proposed harmonized text for DL MIMO SDD text: Differential Codebook for SU-MIMO

Bruno Clerckx, David Mazzarese Samsung Electronics

Jun Yuan, Mo-Han Fong, Hosein Nikopourdeilami, Sophie Vrzic, Robert Novak, Dongsheng Yu Nortel Networks

> Amir Khojastepour, Meilong Jiang, Yuefeng Zhou NEC Group

Yang Tang, Young Hoon Kwon, Jianmin Lu, Yinggang Du Huawei

Proposed Text for SDD DL MIMO

11.x.2.1.3. Feedback for SU-MIMO

In FDD systems and TDD systems, a mobile station may feedback the following information in SU-MIMO mode:

- Rank (Wideband or sub-band)
- Sub-band selection
- CQI (Wideband or sub-band, per CW or per user)
- PMI (Wideband or sub-band)

[To remove the following text in line 13 and 14, on page 9, contribution IEEE 802.16m-08/657r2] For codebook based precoding, the feedback from a mobile station shall be based on the same codebook as used by base station for transmission.

[To add the following text in line 13, on page 9, contribution IEEE 802.16m-08/657r2] For codebook based precoding, two different feedback modes for the PMI shall be supported:

- The standard mode: the feedback from a mobile station shall be based on the same codebook as used by base station for transmission, and it shall be sufficient for the base station to determine the new precoder.
- The differential mode: the feedback from a mobile station provides a differential knowledge which represents information that shall be used along with the other feedback information known at the base station for determining the new precoder.