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Title	DL Precoding matrix signaling for MU-MIMO
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Re:	IEEE 802.16m-08/016r1 (“Call for contributions on Project 802.16m SDD”) Target topic: “Downlink MIMO schemes”
Abstract	This contribution provides precoding matrix signaling for MU-MIMO as relevant to downlink MIMO schemes
Purpose	For discussion and approval by TGM
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DL Precoding matrix signaling for MU-MIMO

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Introduction

In DL PHY Rapporteur Group, two kinds of pilot are proposed. One is dedicated pilot, and the other is common pilot. When common pilots are used for multiuser MIMO (MU-MIMO), the precoding matrix that has been used should be explicitly informed to MSs via control information. In this contribution, we are proposing text to describe the precoding matrix signaling when dedicated pilots are not present in the resource block allocated for MU-MIMO.

Proposed Text for SDD

Insert the following text into Physical Layer sub-clause (i.e. Chapter x in SDD):

----- Text Start -----

- x. DL MIMO
- x.x MU-MIMO
- x.x.x. Codebook based method for MU-MIMO
- x.x.x.x Codebook design for MU-MIMO
- x.x.x.x Precoding matrix signaling for MU-MIMO

When dedicated pilots are not present in the resource allocated for MU-MIMO, precoding matrix should be informed to the corresponding MSs in a multicast manner. Each precoding matrix has one corresponding index. BS multicast the index to indicate the precoding matrix to MSs. The precoding matrix with the same precoding vectors should use the same index, even though the present order of the precoding vectors in the precoding matrix is different.

----- Text End -----