Project	**IEEE 802.16 Broadband Wireless Access Working Group** <http://ieee802.org/16>	
Title	**Comments on OL Transmit Diversity**	
Date Submitted	**2008-10-31**	
Source(s)	Adrian Boariu, Shaohua Li, Qi Xin, Peter Wang, Joon Chun Nokia Siemens Networks	adrian.boariu@nsn.com
	Zexian Li Nokia	zexian.li@nokia.com
Re:	Comments on IEEE 802.16m-08/003r5	
Abstract	Comments on open loop transmit diversity.	
Purpose	Text proposal modification for 802.16m transmit diversity for 4x2 and 8x2 configurations in SDD	
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1. Introduction

The current transmit diversity **W** matrix is not defined for 4Tx and 8Tx rate 1. We propose **W** matrices that provide simple generation of the signal while the performance is not impacted.

2. Proposed change

[Delete on p. 80, the lines 39 and 40, and insert in place the following text while re-labeling the equation numbers]

where by using $\upsilon = floor(k/2)$, k = 0,1,2, …, with k being the symbol index, the **W** precoder is given by:

$$\mathbf{W} = \frac{1}{2}\begin{bmatrix} 1 & 0 \\ 0 & 1 \\ e^{j(1+\upsilon)\pi/6} & 0 \\ 0 & e^{j(1+\upsilon)\pi/3} \end{bmatrix}$$

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where by using $\upsilon = floor(k/2)$, k = 0,1,2, …, with k being the symbol index, the **W** precoder is given by:

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