

Project	<b>IEEE 802.16 Broadband Wireless Access Working Group</b> < <a href="http://ieee802.org/16">http://ieee802.org/16</a> >	
Title	<b>Corrections of Reference Symbol Offset for Rotating Pilots in O-FUSC subchannel</b>	
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Source(s)	Jiho Jang, Jeong-Heon Kim, Seungjoo Maeng, Jaeho Jeon	<a href="mailto:jiho.jang@samsung.com">jiho.jang@samsung.com</a>
	<p>Samsung Electronics Co., Ltd.  Dong Suwon P.O.Box 105  416, Maetan-3dong, Yeongtong-gu,  Suwon-city, Gyeonggi-do, Korea  442-600</p>	
Re:	IEEE P80216-Cor1_D1	
Abstract	Corrections of Reference Symbol Offset for Rotating Pilots in O-FUSC subchannel	
Purpose	Adopting of proposed method into P802.16 maint	
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# Corrections of Reference Symbol Offset for Rotating Pilots in O-FUSC subchannel

## 1. Introduction

In the current standard (IEEE P80216-Cor1\_D1), the positions of pilot tones for optional FUSC (O-FUSC) subchannel are rotated with the symbol index which is referred to the first symbol of the frame, i.e. preamble. Then the pattern of pilot tones may vary according to the start symbol offset of each zone for O-FUSC.

However, in the FUSC subchannel structure, symbol number which determines the positions of the rotating pilots is counted from the first symbol of the current zone. In page 93, line 25, the specification reads “where *FUSC\_SymbolNumber* counts the FUSC symbols used in the current zone starting from 0.”

For the consistency of the pilot positioning in the FUSC and O-FUSC subchannelizations, the reference symbol offset for rotating pilots in O-FUSC subchannel should be changed as in the FUSC subchannel.

## 2. Suggested Text Changes

(1) Make changes in Table 312 (in page 94, line 4) as follows:

Table 312— OFDMA optional FUSC downlink carrier allocations

Parameters	Value	Comments
Number of DC Subcarriers	1	<del>Index 1024 (counting from 0)</del>
$N_{\text{used}}$	<del>1728</del> 1729	<del>Number of all subcarriers used within a symbol, including all possible allocated pilots and the DC carrier.</del>
Guard subcarriers: Left, Right	<del>159,160</del> 160,159	
Number of Pilot Subcarriers	192	
Pilot subcarrier index	$9k+3m+1$ for $k=0,\dots,191$ and $m=[\text{symbol index}] \bmod 3$	<del>Symbol of index 0 in pilot subcarrier index is shall be the first symbol from which the diversity subchannelization is applied of the frame current zone.</del>
Number of Data Subcarriers	1536	