

Project	<b>IEEE 802.16 Broadband Wireless Access Working Group</b> < <a href="http://ieee802.org/16">http://ieee802.org/16</a> >	
Title	<b>Adjacent Carrier Permutation for OFDMA</b>	
Date Submitted	<b>2002-05-15</b>	
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Re:	Call for Contributions on P802.16a Mergers and Consolidation Document Number: IEEE 802.16a-02/22, April 15, 2002. URL: < <a href="http://ieee802.org/16/docs/02/80216-02_22.pdf">http://ieee802.org/16/docs/02/80216-02_22.pdf</a> >	
Abstract	Describes an adjacent carrier permutation for OFDMA.	
Purpose	Addresses an interoperability concern within OFDMA not addressed by C802.16a-02/49. Make proposed changes to P802.16a/D3.	
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# Adjacent Carrier Permutation for OFDMA

*Phil Kelly*

## Purpose

This contribution, in conjunction with C802.16-02/49, achieves complete harmonization of the OFDMA2 PHY mode with the previous OFDMA PHY mode.

## Comment

Page	Line	Section
212	55	8.3.4.5
<b>Comment</b>		
Merge the OFDMA2 mode into the OFDMA mode		
<b>Remedy</b>		
Move (with editorial modifications) the text from line 57 down to line 30 in page 213 to a new section. The modified text should read:		
<b>8.3.4.4.3.3 Adjacent Carrier Permutation</b>		
An OFDMA BS may use the distributed carrier permutations specified in section 8.3.4.4.3 or the adjacent carrier permutation specified in this clause. An OFDMA SS shall be compatible with both permutations. With the adjacent carrier permutation, symbol data within a subchannel is assigned to adjacent carriers and the pilot and data carriers are assigned fixed positions in the frequency domain within an OFDM symbol.		
Table ?: Carrier Allocations for the Adjacent Carrier Permutation		
<pre> =====+=====             Parameter                       Value             =====+=====   Number of dc carriers           1                            =====+=====   Number of Guard Carriers, Left   176                         =====+=====   Number of Guard Carriers, Right   175                         =====+=====   Nused Number of Used Carriers N   1696                        =====+=====   Total Number of Carriers         2048                        =====+=====   Number of Variable-Location Pilots   0                            =====+=====   Number of Fixed-location Pilots    160                         =====+=====   Number of Variable-Location Pilots which   0                              coincide with Fixed-Location Pilots                                    =====+=====   Total Number of Pilots           160                         =====+=====   Number of data carriers          1536                        =====+=====   Nsubchannels                     32                          =====+=====   Nsubcarriers                     53                          =====+=====   Number of data carriers per subchannel   48                          =====+=====   BasicFixedLocationPilots         { 5,16,27,38,49} within each                                       subchannel                   =====+===== </pre>		