Project	IEEE 802.16 Broadband Wireless Access Working Group < <u>http://ieee802.org/16</u> >		
Title	Sounding region allocation clarifications		
Date Submitted	2006-05-04		
Source(s)	Mike Hart mike.hart@uk.fujitsu.com Michiharu Nakamura Miyoshi Saito Kobayashi Hiroki		
Re:	Fujitsu IEEE 802.16e-2005 & comment submitted to the IEEE802.16 #43 maintenance session		
Abstract	Proposes modifications to clarify the issue of sounding region allocation		
Purpose	Adopt changes		
Notice	This document has been prepared to assist IEEE 802.16. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein.		
Release	The contributor grants a free, irrevocable license to the IEEE to incorporate material contained in this contribution, and any modifications thereof, in the creation of an IEEE Standards publication; to copyright in the IEEE's name any IEEE Standards publication even though it may include portions of this contribution; and at the IEEE's sole discretion to permit others to reproduce in whole or in part the resulting IEEE Standards publication. The contributor also acknowledges and accepts that this contribution may be made public by IEEE 802.16.		
Patent Policy and Procedures	The contributor is familiar with the IEEE 802.16 Patent Policy and Procedures < <u>http://ieee802.org/16/ipr/patents/policy.html</u> >, including the statement "IEEE standards may include the known use of patent(s), including patent applications, provided the IEEE receives assurance from the patent holder or applicant with respect to patents essential for compliance with both mandatory and optional portions of the standard." Early disclosure to the Working Group of patent information that might be relevant to the standard is essential to reduce the possibility for delays in the development process and increase the likelihood that the draft publication will be approved for publication. Please notify the Chair < <u>mailto:chair@wirelessman.org</u> > as early as possible, in written or electronic form, if patented technology (or technology under patent application) might be incorporated into a draft standard being developed within the IEEE 802.16 Working Group. The Chair will disclose this notification via the IEEE 802.16 web site < <u>http://ieee802.org/16/ipr/patents/notices</u> >.		

Sounding region allocation clarifications

Mike Hart, Michiharu Nakamura, Miyoshi Saito, Kobayashi Hiroki

1. Introduction

As discussed in the comment submitted to the IEEE session #43, the allocation of a sounding region by the PAPR reduction, Safety Zone and Sounding zone allocation IE requires modification to ensure that the region is correctly allocated.

This document provides the proposed changes to the diagrams and the tables in IEEE802.16e-2005 that accompany the proposed text changes in the comment.

2. New Figures

[Insert Figures 222b and 222c after Figure 222a:]

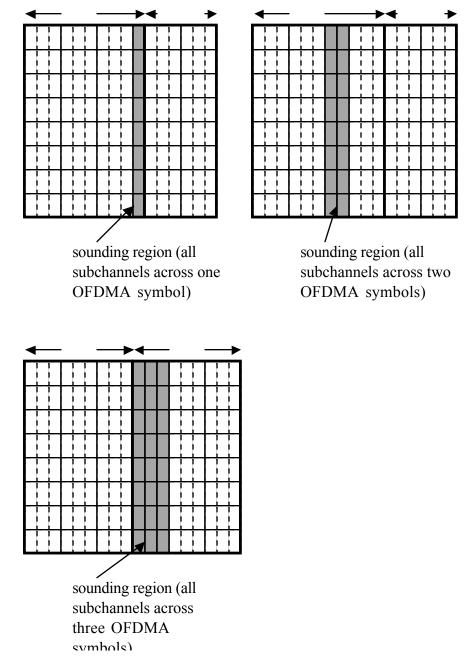


Figure 222b – Example of correct rectangular allocations for the sounding region.

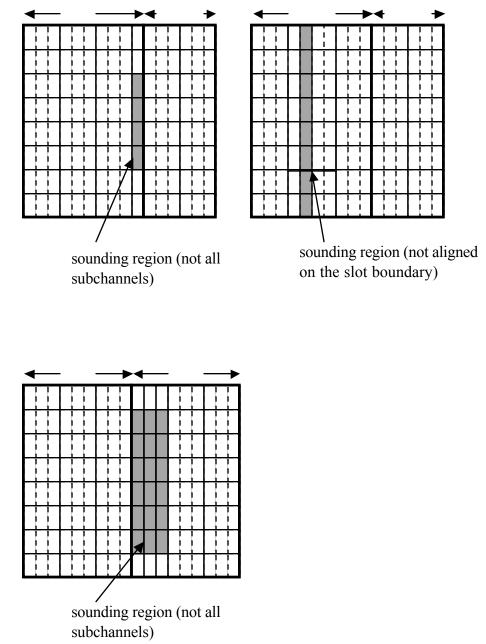


Figure 222c – Example of incorrect rectangular allocations for the sounding region.

3. Change to Table 289

[change Table 289 in 8.4.5.4.2 as indicated:]

 Table 289—PAPR reduction, and safety zone, and sounding zone allocation IE format

anocation 12 for mat			
Syntax	Size	Notes	
PAPR_Reduction_and_Safety_Sounding_Zone_Allocation_IE() {		_	

2006-05-04

OFDMA symbol offset	8 bits	
Subchannel offset	7 bits	if Sounding Allocation, this value
		shall be set to zero.
No. OFDMA symbols	7 bits	_
No. subchannels	7 bits	if Sounding Allocation, this value
		shall be set the same of No.
		subchannels of UL-subframe
PAPR Reduction/Safety Zone	1 bit	0 = PAPR reduction allocation
		1 = Safety zone allocation
Sounding Zone	<u>1 bit</u>	0 = PAPR/Safety Zone
		<u>1 = Sounding Zone Allocation</u>
Reserved	2 <u>1</u>	Shall be set to zero
	bit	
}	_	

[change the field descriptions that follow Table 289 as follows:]

Subchannel offset

The lowest index subchannel <u>that are</u> used for earrying the burstPAPR-reduction/safety-zone, starting from subchannel 0. In the case of a sounding region allocation the subchannel offset shall be zero.

Number of subchannels

The number <u>of</u> subchannels with subsequent indexes <u>that are to carry for</u> the <u>burstPAPRreduction/</u> <u>safety-zone</u>. In the case of a sounding region allocation the number of subchannels shall be set to the total number of subchannels supported in the UL sub-frame.