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Re:	IEEE P802.16e/D7		
Abstract	This contribution introduces corrections for SDMA Pilots in OFDMA PHY		
Purpose	Adopt into P802.16e/D7		
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# Corrections for SDMA Pilots in OFDMA PHY

## 1 Problems with the current SDMA Pilot definition

SDMA pilots have been added to the OFDMA PHY but are only defined by SDMA maps or private maps. Currently, there is not a mechanism to define SDMA pilots with regular maps or submaps.

## 2 Proposed Solution

Add the definition of SDMA pilots to the AAS PHY Modifiers to define SDMA pilots via regular maps or submaps.

## 3 Proposed Text Changes

Section 8.4.5.3.11:

*[Replace Table 286 with the following:]*

**Table 286—OFDMA DL-MAP Physical Modifier IE format**

PHY_MOD_DL_IE() {		
<b>Extended DIUC</b>	4 bits	PHYMOD = 0x08
<b>Length</b>	4 bits	Length = 0x01
<b>Preamble Modifier Type</b>	1 bit	0 – frequency shifted preamble 1 – time shifted Preamble
if (Preamble Modifier Type == 0) {		
<b>Preamble Frequency Shift Index</b>	4 bits	Indicates the value of K in equation (105)
} else {		
<b>Preamble Time Shift Index</b>	4 bits	Specifies the cyclic time shift in equation (104): For PUSC, 0 – 0 sample cyclic shift 1 – (Nfft/14) sample cyclic shift .... 13 – (Nfft/14*13) sample cyclic shift 14-15 – reserved  For AMC permutation, 0 – 0 sample cyclic shift 1 – (Nfft/9) sample cyclic shift .... 8 – (Nfft/9*8) sample cyclic shift 9-15 – reserved
}		

<b>Pilot Pattern Modifier</b>	1 bit	0: Not applied, 1: Applied
<b>Pilot Pattern Index</b>	2 bits	00 – Pilot Pattern #A 01 – Pilot Pattern #B 10 – Pilot Pattern #C 11 – Pilot Pattern #D
<del>—Reserved</del>	<del>–3 bits</del>	
}		

## Section 8.4.5.4.14:

[Replace Table 300 with the following:]

**Table 300—OFDMA UL-MAP Physical Modifier IE format**

PHY_MOD_UL_IE() {		
<b>Extended UIUC</b>	4 bits	PHYMOD = 0x05
<b>Length</b>	4 bits	Length = 0x01
<b>Preamble Modifier Type</b>	1 bit	0 – frequency shifted preamble 1 – time shifted Preamble
if (Preamble Modifier Type == 0) {		
<b>Preamble Frequency Shift Index</b>	4 bits	Indicates the value of K in equation (105)
} else {		
<b>Preamble Time Shift Index</b>	4 bits	Specifies the cyclic time shift in equation (104): For PUSC, 0 – 0 sample cyclic shift 1 – (Nfft/4) sample cyclic shift ... 3 – (Nfft/4*3) sample cyclic shift 4-15 – reserved  For optional PUSC, 0 – 0 sample cyclic shift 1 – (Nfft/3) sample cyclic shift 2 – (Nfft/3*2) sample cyclic shift 3-15 – reserved  For AMC permutation, 0 – 0 sample cyclic shift 1 – (Nfft/9) sample cyclic shift ... 8 – (Nfft/9*8) sample cyclic shift 9-15 – reserved
}		
<b>Pilot Pattern Modifier</b>	1 bit	0: Not applied, 1: Applied
<b>Pilot Pattern Index</b>	2 bits	00 – Pilot Pattern #A 01 – Pilot Pattern #B 10 – Pilot Pattern #C 11 – Pilot Pattern #D
<del>—Reserved</del>	<del>–3 bits</del>	
}		