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Abstract	
Purpose	
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Preamble Sequences for Sub-Channelization

Tal Kaitz Alvarion

Introduction

In draft P80216a_Dalpha2, the preamble sequences are not optimized for subchannelized operation. Moreover there is an error in the assignment of the sequences.

In the following, optimized preamble sequences are proposed. The sequences have low Peak to Average power Ratio (PAPR) of about 3.6-3.7dB. (After x4 interpolation.)

Proposed Sequences and Suggested Text.

Replace the text in page 161 lines 47 with:

 $\begin{array}{l} P_{s0x1}(-88:-76,-50:-39,1:13,64:75) = \{ \ -1,\ 0,\ 1,\ 0,\ -1,\ 0,\ 1,\ 0,\ -1,\ 0,\$

 $\begin{array}{l} P_{s0x2}(\text{-}63\text{:-}51,\text{-}25\text{:-}14\text{,}26\text{:}38\text{,}89\text{:}100) = \{\ 0,\ 1,\ 0,\ 1,\ 0,\ -1,\ 0,\ -1,\ 0,\ 1,\ 0,\ -1,\ 0,\ 1,\ 0,\ -1,\ 0,\ 1,\ 0,\ -1,\ 0,\ 1,\ 0,\ -1,\ 0,\ 1,\ 0,\$

 $\begin{array}{llll} P_{s0x3}(-100:-89,\,-38:-26,14:25,51:63) = & \{1,\,0,\,-1,\,0,\,1,\,0,\,-1,\,0,\,1,\,0,\,-1,\,0,\,1,\,0,\,-1,\,0,\,$

"

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'Long Preamble' Sequences

If we decide to use long preamble in sub-channelized network entry we need to define the subcarrier loading accordingly.

Add in page 162 line 4:

 $S_{s0x1}(-88:-76,-50:-39,1:13,64:75) = \{-1,0,0,0,-1,0,0,0,1,0,0,0,1,0,0,-1,0,0,-1,0,0,-1,0,0,-1,0,0,-1,0,0,-1,0,0,-1,0,0,-1,0,0,-1,0,0,0,-1,0,-1,$

 $S_{s0x2}(-63:-51, -25:-14,26:38,89:100) = \{ 0, 0, 0, 1, 0, 0, 0, 1, 0, 0, 0, -1, 0, 0, -1, 0, 0, 0, 1, 0, 0, 0, 1, 0, 0, 0, 0, -1, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, -1, 0, 0, -1, 0$

 $S_{s0x5}(-88:-76, -63:-51, -50:-39, -25:-14, 1:13, 26:38, 64:75, 89:100) = \{-1, 0, 0, 0, 1, 0, 0, 0, -1, 0, 0, 0, 1, 0, 0, 0, 1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, 1, 0, 0, -1, 0, 0, 0, 1, 0, 0, -1, 0, 0, 0, 1, 0, 0, -1, 0, 0, 0, 1, 0, 0, -1, 0, 0, 0, 1, 0, 0, -1, 0, 0, -1, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0$

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