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Title	Changes to UL OFDM example	
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Re:	IEEE 802.16d Sponsor Ballot	
Abstract		
Purpose		
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Changes to UL OFDM example

Ran Yaniv, Tal Kaitz

Alvarion

Introduction

In comment 178 of recirculation ballot 11a, it is proposed to change the Interleaver parameter Nmod to be equal 12 for all cases. As a consequence, the OFDM encoding example in 8.4.3.5 should be modified.

Proposed Text Changes:

In 8.4.3.5 (“Example OFDM UL-RS CC)

Input Data (Hex)

45 29 C4 79 AD 0F 55 28 AD 87 B5 76 1A 9C 80 50 45 1B 9F D9 2A 88 95 EB AE B5 2E 03 4F 09 14 69 58 0A 5D

Randomized Data (Hex)

D5 0E A4 AA EF E4 DB 51 88 91 6B 00 DF AA 1E E7 02 A8 0E 70 4F 7F C9 D8 66 1D 9D F0 E7 20 E4 9D 7A 32 91

Reed-Solomon encoded Data (Hex)

95 CE 22 76 D5 0E A4 AA EF E4 DB 51 88 91 6B 00 DF AA 1E E7 02 A8 0E 70 4F 7F C9 D8 66 1D 9D F0 E7 20 E4 9D 7A 32 91 00

Convolutionally Encoded Data (Hex)

D5 2E 96 38 FE 93 1E 6A AF 17 D3 44 E4 8B 45 8F 13 D6 AF 27 E3 B2 D5 0A 57 C1 2A F1 A9 73 86 71 3F F1 03 95 F8 ED 2D 30 A2 E0 DB D2 F8 8E B3 4C

Interleaved Data (Hex)

D4 EA 3A CA D0 85 A2 C8 75 DE 23 B5 AB 57 F7 E9 7C 3C 01 9E 8B FC 98 17 0E 2E DC 5E D2 38 B7 0C 26 83 E4 EF 6F 52 8D C9 FC 1D 7C A2 36 66 1D 4A

Carrier Mapping (frequency offset index: I value Q value)

-100: -1 -1, -99: 1 -1, -98: 1 -1, -97: 1 1, -96: -1 -1, -95: -1 1, -94: -1 1, -93: -1 1, -92: 1 1, -91: -1 -1,
-90: -1 1, -89: -1 1, -88:pilot= 1 0, -87: -1 -1, -86: 1 1, -85: -1 1, -84: -1 1, -83: -1 -1, -82: 1 -1, -81: 1 1,
-80: 1 1, -79: -1 1, -78: 1 1, -77: 1 -1, -76: 1 -1, -75: -1 1, -74: -1 1, -73: 1 1, -72: -1 1, -71: -1 -1,
-70: 1 1, -69: -1 1, -68: 1 1, -67: 1 -1, -66: -1 -1, -65: 1 -1, -64: 1 -1, -63:pilot= -1 0, -62: -1 -1, -61: 1 -1,
-60: -1 -1, -59: -1 1, -58: 1 1, -57: -1 1, -56: 1 1, -55: -1 -1, -54: -1 1, -53: -1 -1, -52: 1 -1, -51: 1 -1,
-50: -1 1, -49: -1 1, -48: -1 1, -47: -1 -1, -46: 1 -1, -45: 1 -1, -44: 1 -1, -43: -1 -1, -42: -1 -1, -41: -1 -1,
-40: 1 -1, -39: -1 -1, -38:pilot= 1 0, -37: -1 -1, -36: -1 1, -35: -1 1, -34: 1 -1, -33: 1 -1, -32: -1 -1, -31: -1 -1,
-30: 1 1, -29: 1 1, -28: -1 -1, -27: -1 -1, -26: 1 1, -25: 1 1, -24: 1 1, -23: 1 1, -22: 1 -1, -21: -1 1,
-20: 1 -1, -19: -1 -1, -18: -1 1, -17: -1 1, -16: 1 1, -15: -1 1, -14: -1 -1, -13:pilot= -1 0, -12: -1 -1, -11: -1 -1,
-10: -1 -1, -9: 1 1, -8: -1 1, -7: 1 -1, -6: -1 1, -5: 1 1, -4: 1 1, -3: 1 -1, -2: 1 -1, -1: -1 -1,
0: 0 0, 1: 1 1, 2: 1 1, 3: -1 -1, 4: -1 1, 5: 1 1, 6: -1 1, 7: -1 -1, 8: -1 1, 9: -1 -1,
10: 1 -1, 11: -1 -1, 12: 1 1, 13:pilot= 1 0, 14: 1 -1, 15: 1 -1, 16: -1 -1, 17: -1 1, 18: -1 -1, 19: 1 -1,
20: 1 1, 21: -1 1, 22: 1 1, 23: -1 -1, 24: -1 1, 25: 1 1, 26: -1 1, 27: -1 -1, 28: 1 -1, 29: -1 -1,
30: 1 1, 31: 1 1, 32: -1 -1, 33: 1 1, 34: 1 1, 35: -1 1, 36: 1 -1, 37: -1 1, 38:pilot= 1 0, 39: -1 1,
40: 1 1, 41: 1 1, 42: -1 -1, 43: -1 -1, 44: -1 1, 45: 1 -1, 46: 1 1, 47: -1 -1, 48: -1 1, 49: -1 -1,
50: -1 -1, 51: 1 -1, 52: -1 1, 53: -1 -1, 54: -1 -1, 55: 1 -1, 56: 1 -1, 57: 1 1, 58: -1 1, 59: -1 1,
60: 1 1, 61: -1 -1, 62: 1 -1, 63:pilot= 1 0, 64: -1 -1, 65: 1 1, 66: -1 1, 67: 1 -1, 68: -1 -1, 69: -1 -1,
70: -1 -1, 71: 1 1, 72: 1 1, 73: 1 -1, 74: -1 -1, 75: 1 -1, 76: 1 -1, 77: -1 -1, 78: -1 -1, 79: 1 1,
80: -1 1, 81: -1 1, 82: 1 1, 83: -1 1, 84: 1 1, 85: -1 -1, 86: 1 -1, 87: -1 1, 88:pilot= 1 0, 89: 1 -1,
90: -1 1, 91: 1 -1, 92: -1 1, 93: 1 1, 94: 1 -1, 95: -1 -1, 96: 1 -1, 97: 1 -1, 98: 1 1, 99: -1 1, 100: -1 1

Note that the above QPSK values (all values with exception of the BPSK pilots) are to be normalized with a factor $1/\sqrt{2}$ as indicated in Figure ….