Project	**IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>**
Title	**Correction to the example of OFDMA uplink CC encoding**
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Re:	IEEE 802.16 WG Sponsor Ballot on P802.16-2004/Cor1/D3
Abstract	This contribution is to make correction to the example of OFDMA uplink CC encoding.
Purpose	To incorporate the test vectors in this contribution into P802.16-2004/Cor1/D4.
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Correction to the example of OFDMA uplink CC encoding

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1. Problem Statement

In section 8.4.9.4.4 of P80216_Cor1_D3, an example of one burst of OFDMA uplink using mandatory structure is provided. However, there are errors in subcarrier randomization sequence. Therefore the results of mapping the modulated data onto subcarriers are incorrect.

2. Proposed solutions

Provide the correct subcarrier randomization sequences, and mapping of the I/Q data and pilot values onto subcarriers.

3. Specific text changes

=== Start text changes ====

[Modify the following text in section 8.4.9.4.4 Example of OFDMA uplink CC encoding]

~~(35,448,+1/0), (35,449,-0.707/+0.707), (35,450,-0.707/-0.707), (35,451,+1/0), (35,512,+1/0), (35,513,-0.707/+0.707), (35,514,-0.707/-0.707), (35,515,-1/0), (35,984,+1/0), (35,985,-0.707/-0.707), (35,986,+0.707/-0.707), (35,987,+1/0), (35,1189,-1/0), (35,1190,-0.707/-0.707), (35,1191,-0.707/-0.707), (35,1192,+1/0), (35,1505,+1/0), (35,1506,+0.707/-0.707), (35,1507,-0.707/+0.707), (35,1508,+1/0), (35,1753,-1/0), (35,1754,-0.707/-0.707), (35,1755,+0.707/-0.707), (35,1756,+1/0), (36,448,-0.707/+0.707), (36,449,+0.707/-0.707), (36,450,+0.707/-0.707), (36,451,+0.707/+0.707), (36,512,+0.707/+0.707), (36,513,-0.707/-0.707), (36,514,-0.707/+0.707), (36,515,+0.707/+0.707), (36,984,-0.707/-0.707), (36,985,+0.707/+0.707), (36,986,+0.707/-0.707), (36,987,-0.707/+0.707), (36,1189,+0.707/+0.707), (36,1190,+0.707/-0.707), (36,1191,-0.707/+0.707), (36,1192,-0.707/-0.707), (36,1505,-0.707/-0.707), (36,1506,-0.707/-0.707), (36,1507,-0.707/-0.707), (36,1508,+0.707/-0.707), (36,1753,-0.707/+0.707), (36,1754,-0.707/-0.707), (36,1755,+0.707/-0.707), (36,1756,+0.707/+0.707), (37,448,+1/0), (37,449,-0.707/-0.707), (37,450,+0.707/-0.707), (37,451,-1/0), (37,512,+1/0), (37,513,-0.707/+0.707), (37,514,+0.707/+0.707), (37,515,+1/0), (37,984,+1/0), (37,985,+0.707/-0.707), (37,986,+0.707/-0.707), (37,987,+1/0), (37,1189,+1/0), (37,1190,+0.707/+0.707), (37,1191,-0.707/-0.707), (37,1192,+1/0), (37,1505,-1/0), (37,1506,-0.707/+0.707), (37,1507,+0.707/-0.707), (37,1508,-1/0), (37,1753,+1/0), (37,1754,-0.707/-0.707), (37,1755,-0.707/+0.707), (37,1756,-1/0), (38,232,+1/0), (38,233,+1/0), (38,234,-0.707/+0.707), (38,235,-0.707/+0.707), (38,704,+1/0), (38,705,+1/0), (38,706,-0.707/+0.707), (38,707,-0.707/+0.707), (38,908,+1/0), (38,909,+1/0), (38,910,-0.707/-0.707), (38,911,-0.707/+0.707), (38,1225,+1/0), (38,1226,+1/0), (38,1227,-0.707/-0.707), (38,1228,-0.707/-0.707), (38,1473,+1/0), (38,1474,+1/0), (38,1475,-0.707/-0.707), (38,1476,+0.707/+0.707), (38,1813,+1/0), (38,1814,+1/0), (38,1815,+0.707/+0.707), (38,1816,-0.707/+0.707), (39,232,-0.707/+0.707), (39,233,-0.707/+0.707), (39,234,+0.707/-0.707), (39,235,+0.707/-0.707), (39,704,+0.707/+0.707), (39,705,-0.707/-0.707), (39,706,+0.707/-0.707), (39,707,-0.707/-0.707), (39,908,-0.707/+0.707), (39,909,-0.707/-0.707), (39,910,-0.707/-0.707), (39,911,-0.707/-0.707), (39,1225,+0.707/-0.707), (39,1226,+0.707/-0.707), (39,1227,-0.707/-0.707), (39,1228,+0.707/-0.707), (39,1473,-0.707/+0.707), (39,1474,+0.707/-0.707), (39,1475,-0.707/+0.707), (39,1476,-0.707/+0.707), (39,1813,+0.707/+0.707), (39,1814,-0.707/+0.707), (39,1815,-0.707/+0.707), (39,1816,-0.707/-0.707), (40,232,+1/0), (40,233,+1/0), (40,234,+0.707/-0.707), (40,235,+0.707/-0.707), (40,704,+1/0), (40,705,+1/0),~~

~~(40,706,+0.707/-0.707), (40,707,+0.707/-0.707), (40,908,+1/0), (40,909,+1/0), (40,910,+0.707/-0.707), (40,911,-0.707/+0.707), (40,1225,+1/0), (40,1226,+1/0), (40,1227,+0.707/+0.707), (40,1228,+0.707/-0.707), (40,1473,+1/0), (40,1474,+1/0), (40,1475,+0.707/-0.707), (40,1476,-0.707/+0.707), (40,1813,+1/0), (40,1814,+1/0), (40,1815,+0.707/-0.707), (40,1816,-0.707/+0.707),~~

(35,448,1.33)(35,449,-0.707-0.707i)(35,450,-0.707-0.707i)(35,451,-1.33)
(35,512,1.33)(35,513,0.707-0.707i)(35,514,-0.707+0.707i)(35,515,1.33)
(35,984,1.33)(35,985,-0.707-0.707i)(35,986,0.707-0.707i)(35,987,1.33)
(35,1189,-1.33)(35,1190,0.707+0.707i)(35,1191,0.707+0.707i)(35,1192,-1.33)
(35,1505,1.33)(35,1506,-0.707-0.707i)(35,1507,-0.707-0.707i)(35,1508,-1.33)
(35,1753,1.33)(35,1754,-0.707-0.707i)(35,1755,0.707-0.707i)(35,1756,-1.33)
(36,448,0.707+0.707i)(36,449,0.707-0.707i)(36,450,-0.707+0.707i)(36,451,0.707-0.707i)
(36,512,0.707-0.707i)(36,513,0.707+0.707i)(36,514,-0.707+0.707i)(36,515,-0.707-0.707i)
(36,984,0.707+0.707i)(36,985,-0.707-0.707i)(36,986,0.707-0.707i)(36,987,0.707+0.707i)
(36,1189,-0.707+0.707i)(36,1190,0.707+0.707i)(36,1191,-0.707-0.707i)(36,1192,-0.707+0.707i)
(36,1505,-0.707-0.707i)(36,1506,0.707+0.707i)(36,1507,0.707-0.707i)(36,1508,0.707-0.707i)
(36,1753,0.707-0.707i)(36,1754,-0.707-0.707i)(36,1755,-0.707-0.707i)(36,1756,0.707-0.707i)
(37,448,1.33)(37,449,-0.707-0.707i)(37,450,-0.707-0.707i)(37,451,-1.33)
(37,512,1.33)(37,513,0.707+0.707i)(37,514,-0.707+0.707i)(37,515,1.33)
(37,984,1.33)(37,985,0.707-0.707i)(37,986,-0.707+0.707i)(37,987,1.33)
(37,1189,-1.33)(37,1190,-0.707+0.707i)(37,1191,0.707-0.707i)(37,1192,-1.33)
(37,1505,1.33)(37,1506,0.707+0.707i)(37,1507,-0.707+0.707i)(37,1508,-1.33)
(37,1753,1.33)(37,1754,-0.707+0.707i)(37,1755,-0.707+0.707i)(37,1756,-1.33)
(38,328,-1.33)(38,329,-0.707+0.707i)(38,330,0.707+0.707i)(38,331,1.33)
(38,524,1.33)(38,525,0.707-0.707i)(38,526,0.707-0.707i)(38,527,-1.33)
(38,784,1.33)(38,785,0.707-0.707i)(38,786,-0.707+0.707i)(38,787,-1.33)
(38,1209,1.33)(38,1210,-0.707+0.707i)(38,1211,-0.707-0.707i)(38,1212,-1.33)
(38,1361,-1.33)(38,1362,0.707+0.707i)(38,1363,-0.707-0.707i)(38,1364,1.33)
(38,1601,1.33)(38,1602,0.707+0.707i)(38,1603,0.707-0.707i)(38,1604,1.33)
(39,328,-0.707+0.707i)(39,329,0.707-0.707i)(39,330,0.707-0.707i)(39,331,0.707+0.707i)
(39,524,-0.707+0.707i)(39,525,-0.707+0.707i)(39,526,-0.707-0.707i)(39,527,0.707+0.707i)
(39,784,-0.707-0.707i)(39,785,-0.707-0.707i)(39,786,0.707-0.707i)(39,787,-0.707+0.707i)
(39,1209,0.707-0.707i)(39,1210,-0.707+0.707i)(39,1211,-0.707-0.707i)(39,1212,-0.707-0.707i)
(39,1361,-0.707-0.707i)(39,1362,0.707-0.707i)(39,1363,-0.707-0.707i)(39,1364,0.707-0.707i)
(39,1601,-0.707+0.707i)(39,1602,-0.707+0.707i)(39,1603,0.707+0.707i)(39,1604,-0.707-0.707i)
(40,328,-1.33)(40,329,-0.707+0.707i)(40,330,-0.707-0.707i)(40,331,1.33)
(40,524,1.33)(40,525,-0.707+0.707i)(40,526,0.707+0.707i)(40,527,-1.33)
(40,784,1.33)(40,785,-0.707+0.707i)(40,786,0.707-0.707i)(40,787,-1.33)
(40,1209,1.33)(40,1210,0.707-0.707i)(40,1211,0.707-0.707i)(40,1212,-1.33)
(40,1361,-1.33)(40,1362,-0.707-0.707i)(40,1363,-0.707+0.707i)(40,1364,1.33)
(40,1601,1.33)(40,1602,0.707-0.707i)(40,1603,-0.707-0.707i)(40,1604,1.33)

=== End text changes ====

4. References

[1] IEEE 802.16-2004
[2] P80216_Cor1_D3