Figures describing the randomization process and BCC inner code in IEEE 802.16

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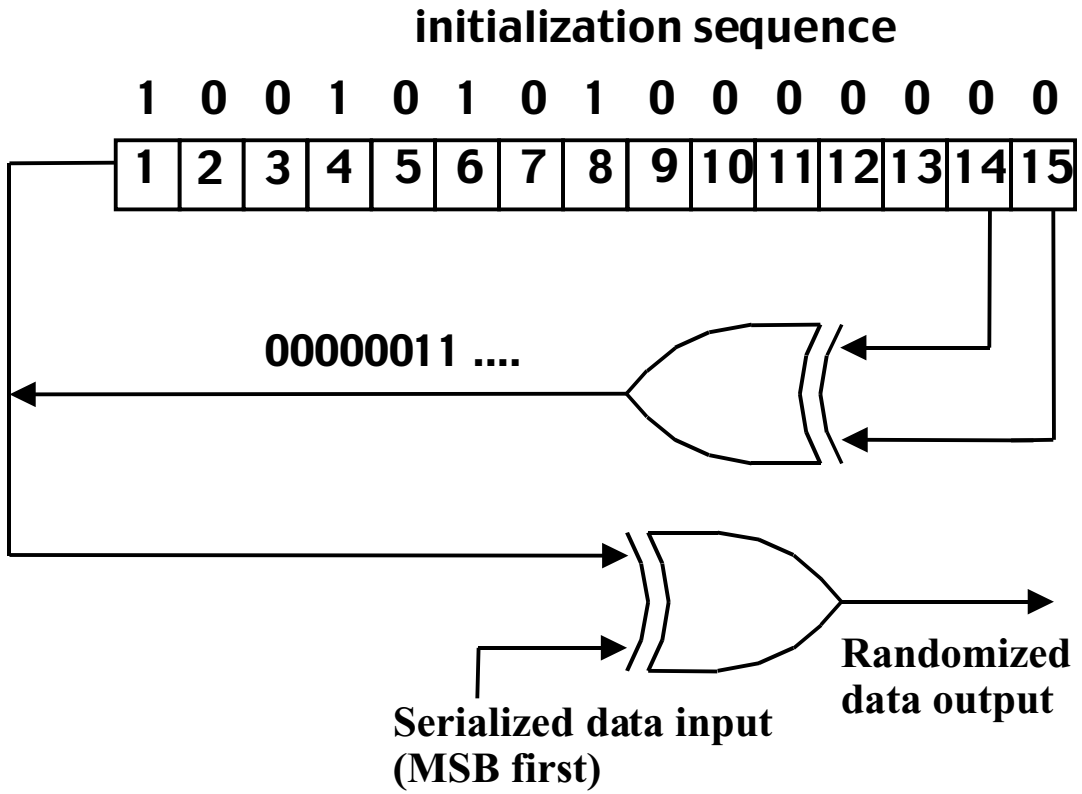
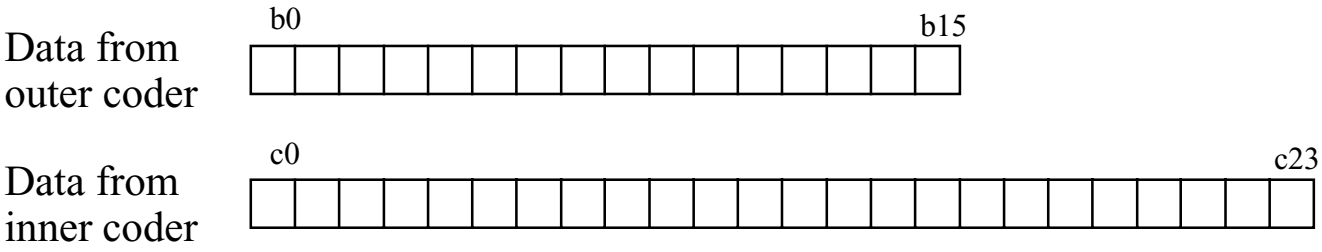
Purpose:

This document contains two figures needed for the Recirculation Ballot #3a

Figure 120


initialization sequence
1 0 0 1 0 1 0 1 0 0 0 0 0 0 0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
00000011 ....
Randomized
data output
Serialized data input
(MSB first)

Inner Code for Code Type 2 (BCC)



C23=b15+b0+b1
C22=b15+b1
C21=b14+b15+b0
C20=b13+b14+b15
C19=b13+b15
C18=b12+b13+b14
C17=b11+b12+b13
C16=b11+b13
C15=b10+b11+b12
C14=b9+b10+b11
C13=b9+b11
C12=b8+b9+b10

C11=b7+b8+b9
C10=b7+b9
c9=b6+b7+b8
c8=b5+b6+b7
c7=b5+b7
c6=b4+b5+b6
c5=b3+b4+b5
c4=b3+b5
c3=b2+b3+b4
c2=b1+b2+b3
c1=b1+b3
c0=b0+b1+b2

16 bits of data is entering the inner BCC coder. B15 (MSB) first

24 bits of data is outputed from the inner coder. C23 (MSB) first.

The bits c23-c0 can be defined by combinatorial logic. In the equations. + means exclusive or