

A code for error detection

Data word	code word
000	000000
001	001011
010	010111
011	011110

Table: 3B/6B 'codeword datawords

① Comparing the received code word with the first codeword in the table (001011 versus 000000) The receiver decides that the first code word is not the one that was sent because there are 3 differences.

② By the same reasoning the original code word can not be the third or fourth or fifth.