

~~Refers Nello Rose n° 704779~~

~~Ex. 3 2018-07-01~~



3)

~~Manuel Landin~~

$$R_c = \frac{R_{LH}}{R} = \frac{10 \text{ Mbit/s}}{1/3} = 30 \text{ Mbit/s}$$

$$B_r = \frac{R_c}{2} (1 + 8) = \frac{R_c}{2} = 15 \text{ Mbit/s}$$

Dmee

2023/01/14

E2) BCH code $N=31$
generator

107657

$$001, 000, 111, 110, 101, 112 \rightarrow f(D) = D^{15} + D^{11} + D^{10} + D^9 + D^8 + D^7 + D^5 + D^3 + D^2 + D + 1$$

$$f(D) = D^{15} + D^{11} + D^{10} + D^9 + D^8 + D^7 + D^5 + D^3 + D^2 + D + 1$$

$$N - n = 15$$

$$k = N - 15 = 16$$

$$\# \text{ codewords} = 2^k = 2^{16} = 65536$$

2 words $\rightarrow 20$ words (0 of 4)

15 words $\rightarrow 7$ 1's

46 words $\rightarrow 8$ 1's

5208 $\rightarrow 11$ 1's

$$d_{min} = 7$$