FEC based on BCH Code



BCH Code FEC has: Symbol width is 1, every symbol is 1 bit. Galois Field arithmetic is done with primitive polynomial of degree 'm' No iterative feedback in pipeline.

Encoder:

The BCH Encoder gets 'k' symbols and generates the generator polynomial based on 'm', 't' . It then generates $2^{*'}t'$ ECC parity symbols

Decoder:

- Syndrome Calculator:
 - It calculates 2*'t' Syndromes from codeword of 'n' symbols
- Berlekamp Masy Circuit:
 - It cauculates 't' error locator polynomials from 2*'t' Syndromes
- Chien Search:
 - It searches for locations where errors were injected in the 'n' codeword symbols with 't' error locator polynomials.

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