



# FEC Baseline

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## FEC and Bit ordering

- ▶ **Use RS(450, 406,  $2^9$ ) code for the FEC**
  - shen\_3bp\_01\_0714.pdf page 8
- ▶ **GF( $2^9$ ) field generator polynomial and RS code generator polynomial - TBD**
- ▶ **The first 405 9-bit symbols are data from 45 complete 80/81 encoder blocks. Bit 0 of the 80/81 block transmitted first**
- ▶ **The 406<sup>th</sup> 9-bit symbol is reserved for future use**
  - Set as a constant value for now: 111 101 010 (MSB to LSB)
  - PAM3 output as 0, -1, -1, +1, +1, 0 (first to transmit to last to transmit)
- ▶ **LSB of RS symbol transmitted first**

## PAM3 mapping table and bit ordering

- ▶ B[0] LSB from RS
- ▶ T[0] transmitted first

B[2], B[1], B[0]	T[1], T[0]
000	-1, -1
001	0, -1
010	-1, 0
011	-1, +1
100	+1, 0
101	+1, -1
110	+1, +1
111	0, +1

## Motion

- ▶ **Adopt Lo\_3bp\_02\_0914.pdf as baseline for FEC and bit ordering**
- ▶ **M: William Lo, S: Mehmet Tazebay**
- ▶ **Y: N: A:**