# Comparison of Various UEP Techniques for IRNSS Message Structure

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We classify UEP techniques in a integrated method and an separated method depending on whether each information unit shares the same error correction code or not. And we propose a separated UEP method and an integrated UEP method for IRNSS
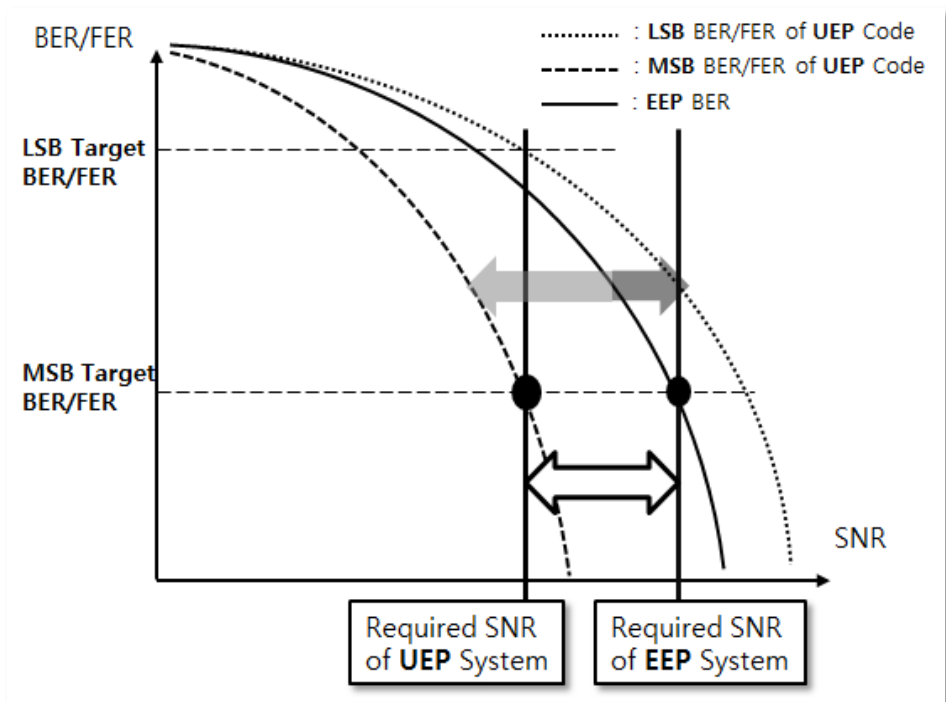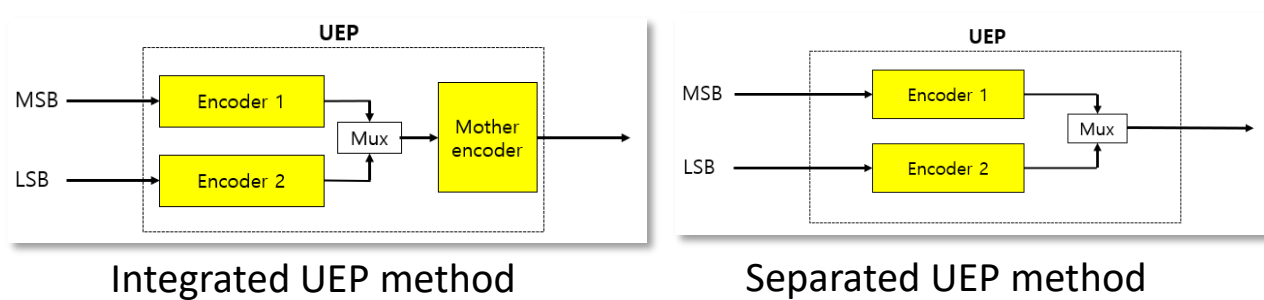
▪ Original IRNSS Equal Error Protection
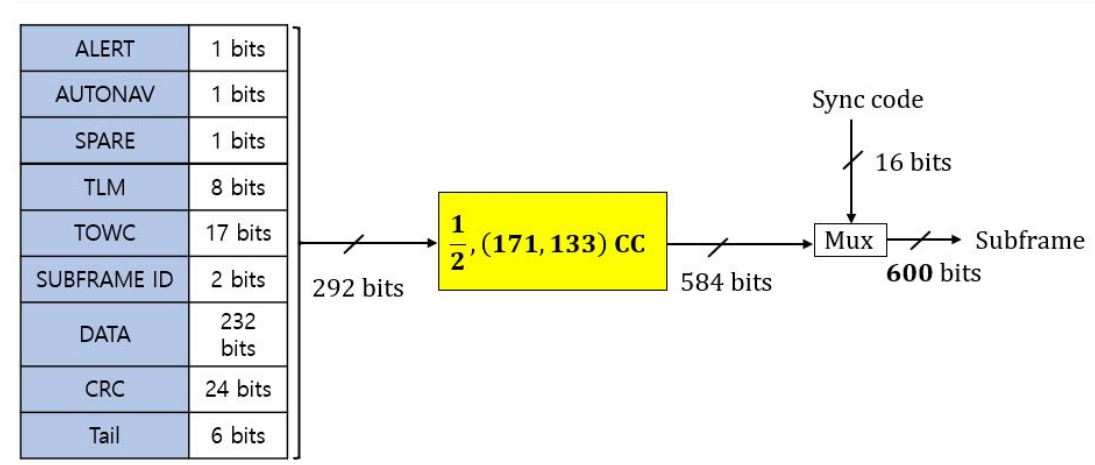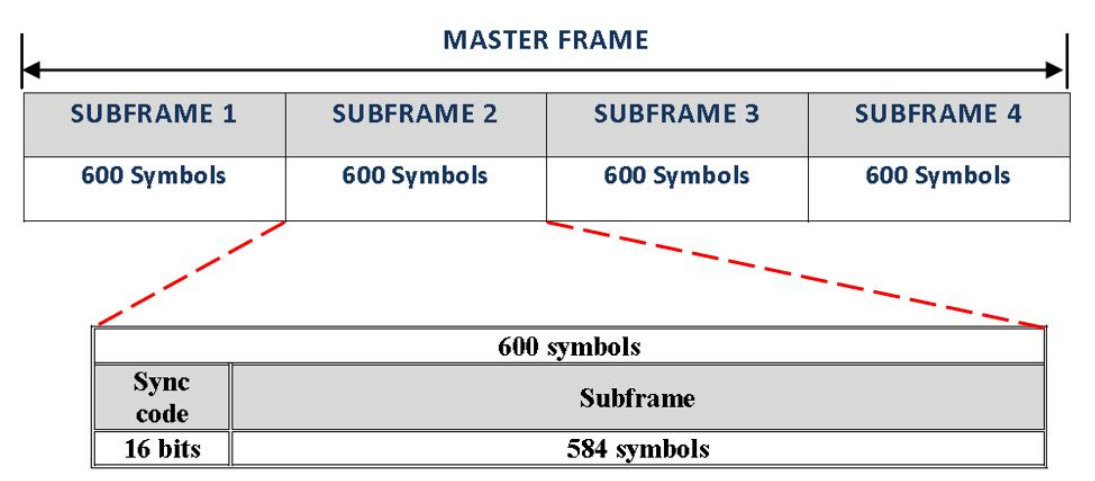
IRNSS Message structure(Above), Original IRNSS EEP(Below)
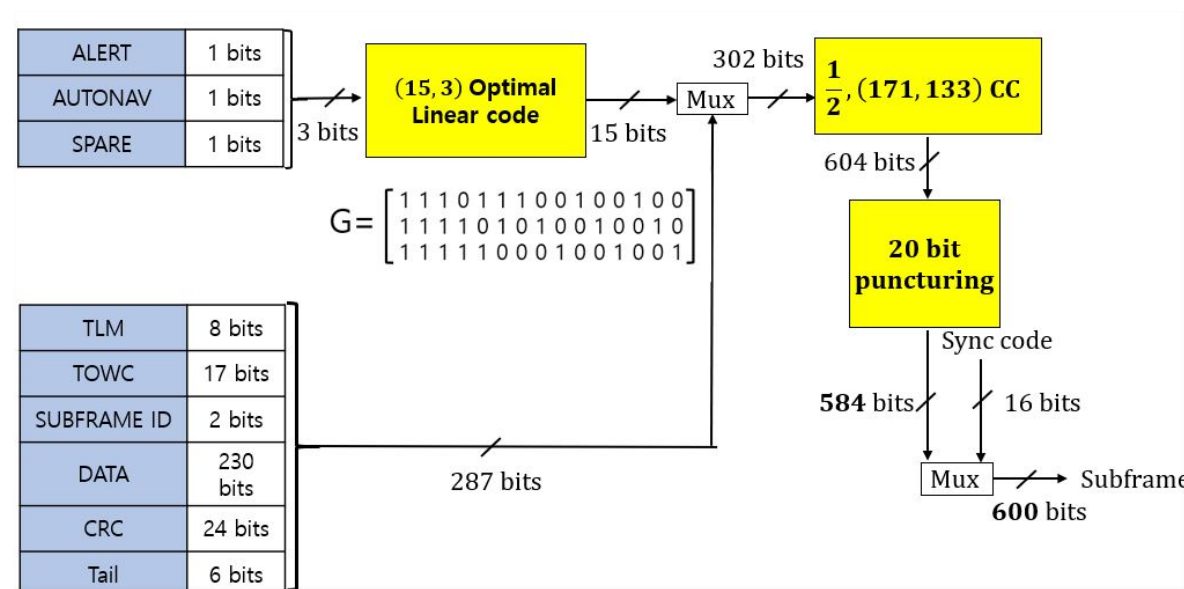
- All data bits are encoded by using ½ convolutional code

▪ Unequal Error Protection

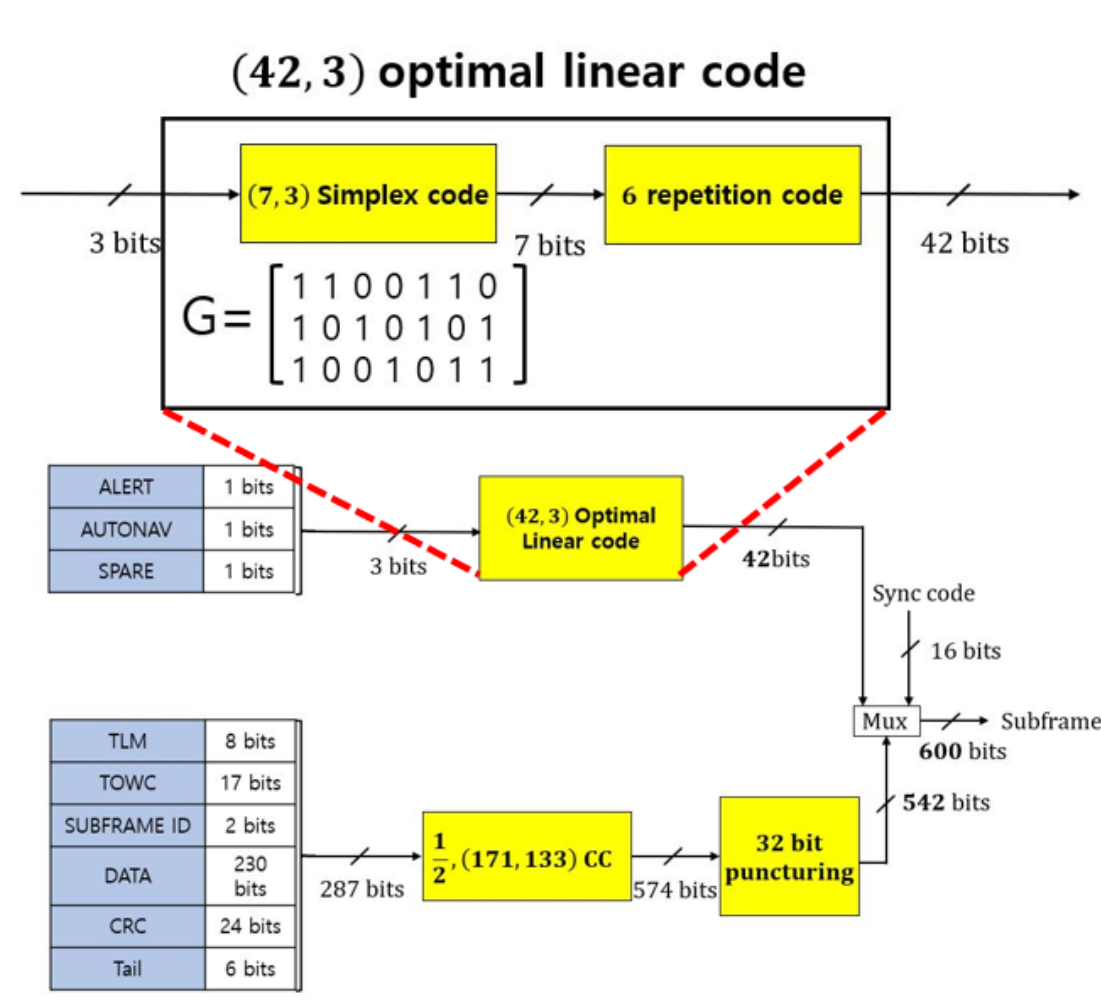Integrated UEP method   Separated UEP method

The effect of UEP

- Integrated UEP method is expected to have better performance than separated UEP method due to its long code length.

- In separated UEP method, decoder can decode the specific data first

▪ Integrated UEP method for IRNSS

▪ Separated UEP method for IRNSS

▪ BER Performance