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(54) Title: **DEVICE FOR ENCODING N-BIT SOURCE WORDS INTO CORRESPONDING M-BIT CHANNEL WORDS AND DECODING M-BIT CHANNEL WORDS INTO CORRESPONDING N-BIT SOURCE WORDS**

(57) Abstract

A device is disclosed for encoding a stream of databits of a binary source signal (S) into a stream of databits of a binary channel signal (C), wherein the stream of databits of the source signal is divided into n-bit source words (x_1, x_2), which device comprises converting means (CM) conceived to convert said n-bit source words into corresponding m-bit channel words (y_1, y_2, y_3) in accordance with a conversion of the parity preserve type, where m and n are integers, with $m > n$. The device further comprises control means for carrying out DC-control on said binary channel signal by introducing a freedom of choice in the source-to-channel conversion. Furthermore, a decoding device is disclosed for decoding the channel signal obtained by means of the encoding device.

