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(54) **LOW DENSITY PARITY CHECK ENCODER HAVING LENGTH OF 64800 AND CODE RATE OF 7/15, AND LOW DENSITY PARITY CHECK ENCODING METHOD USING THE SAME**

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(57) **ABSTRACT**

A low density parity check (LDPC) encoder, an LDPC decoder, and an LDPC encoding method are disclosed. The LDPC encoder includes first memory, second memory, and a processor. The first memory stores an LDPC codeword having a length of 64800 and a code rate of 7/15. The second memory is initialized to 0. The processor generates the LDPC codeword corresponding to information bits by performing accumulation with respect to the second memory using a sequence corresponding to a parity check matrix (PCM).