



US 20240223221A1

(19) **United States**

(12) **Patent Application Publication**
CHAI et al.

(10) **Pub. No.: US 2024/0223221 A1**

(43) **Pub. Date: Jul. 4, 2024**

(54) **METHOD, APPARATUS, AND DEVICE FOR
DECODING ERROR CORRECTION CODE,
AND STORAGE MEDIUM**

(52) **U.S. Cl.**
CPC **H03M 13/6516** (2013.01)

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(57) **ABSTRACT**

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(21) Appl. No.: **18/344,604**

(22) Filed: **Jun. 29, 2023**

(30) **Foreign Application Priority Data**

Dec. 30, 2022 (CN) 202211738080.1

Publication Classification

(51) **Int. Cl.**
H03M 13/00 (2006.01)

A method for decoding an error correction code is provided. The method includes: acquiring a Galois field equation corresponding to the error correction code; determining a target relational expression corresponding to error locations after decoding the error correction code; determining multiple conjugate location pairs based on the target relational expression; determining a first polynomial corresponding to an exponential coefficient of a first location in a conjugate location pair and a second polynomial corresponding to an exponential coefficient of a second location in the conjugate location pair based on a correspondence table between exponents and polynomials; performing an exclusive OR operation on coefficients of the first polynomial and the second polynomial to obtain an exclusive OR result; and determining the first location and the second location as error locations, in a case that the exclusive OR result matches a target coefficient of the Galois field equation.

