

ABSTRACT

Embodiments of the present invention disclose a decoding device. By performing processing in a case in which a value of an updated code element exceeds a code element quantization range in a process of updating a code word of an LDPC
5 code, the decoding device selectively abandons an update in the case in which the updated code element exceeds the code element quantization range, which prevents the decoding device from directly quantizing an updated code word that exceeds the code element quantization range, and improves an error correction capability of the decoding device in a decoding process.

FIGURE 3