ENCODER, DECODER, ENCODING METHOD, AND DECODING METHOD

[ABSTRACT]

An encoder (100) includes circuitry and memory connected to the circuitry. The circuitry, in operation: derives, as a first parameter, a total sum of absolute values of sums of horizontal gradient values respectively for pairs of relative pixel positions; derives, as a second parameter, a total sum of absolute values of sums of vertical gradient values respectively for the pairs of relative pixel positions; derives, as a third parameter, a total sum of horizontal-related pixel difference values respectively for the pairs of relative pixel positions; derives, as a fourth parameter, a total sum of vertical-related pixel difference values respectively for the pairs of relative pixel positions; derives, as a fifth parameter, a total sum of vertical-related sums of horizontal gradient values respectively for the pairs of relative pixel positions; and generates a prediction image to be used to encode the current block using the first, second, third, fourth, and fifth parameters.

Figure 54