Abstract of the Disclosure

A method and apparatus for predicting a chrominance signal from a luminance signal by using a correlation between the luminance and chrominance signals. A method of predicting a chrominance component image generates a down-sampled luminance signal matching a chrominance signal by independently applying various down-sampling methods according to a location of a luminance signal, and predicts a chrominance signal from the down-sampled luminance signal, while considering a size of a luminance prediction unit and a size of a chrominance prediction unit corresponding to each other according to a color format.