

ENCODING RATIO SETTING METHOD AND RADIO COMMUNICATION DEVICE

Abstract

Disclosed are an encoding ratio setting method and a radio communication device which can avoid encoding of control information at an encoding ratio lower than necessary and suppress lowering of the transmission efficiency of the control information. In the device, an encoding ratio setting unit (122) sets the encoding ratio $R'_{control}$ of the control information which is time-multiplexed with user data, according to the encoding ratio R_{data} of the user data, $\Delta PUSCH_{offset}$ as the PUSCH offset of each control information, and $\Delta RANK_{offset}$ as the rank offset based on the rank value of the data channel using Expression (1).

$$R'_{control} = \frac{O}{Q'} = \max \left(\left\lceil \frac{O}{10^{\frac{-\Delta_{offset}^{PUSCH} + \Delta_{offset}^{RANK}}{10}} \cdot R_{data}} \right\rceil, \frac{O}{4 \cdot M_{sc}} \right) \quad \dots (1)$$

Where $\lceil x \rceil$ is an integer not greater than x, and $\max(x,y)$ is the greater one among X and Y.

FIGURE 2