

ABSTRACT

When a base station device notifies all items of information of interference signals to terminal devices, which are multiplexed by Superposition Coding, for each of communication opportunities, a problem arises in that an overhead size increases with an increase in amount of control information. In a base station device for transmitting data signals to a plurality of terminal devices, the base station device includes a signal multiplexing unit that multiplexes data signals for at least a first terminal device and a second terminal device, a control information generation unit that generates, for the first terminal device, control information containing information related to the data signal destined for the second terminal device, and a radio receiving unit that receives information of a reception processing capability of each terminal device. The information of the reception processing capability is information indicating whether the terminal device executes error correction decoding of an interference signal when the terminal device detects the multiplexed data signals, and the information related to the data signal destined for the second terminal device and contained in the control information is generated by the control information generation unit to be different depending on the received information of the reception processing capability.