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(54) **WIRELESS COMMUNICATION SYSTEM, RELAY DEVICE, COMMUNICATION DEVICE, AND WIRELESS COMMUNICATION METHOD**

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(57) **ABSTRACT**

A first offset compensator configured to compensate for frequency offsets occurring during communications between a plurality of communication devices and a relay device, wherein when the first offset compensator is provided on the relay device, the first offset compensator gives a statistical frequency offset obtained from a statistic of a plurality of frequency offsets occurring during communications between respective ones of the plurality of communication devices and the relay device to a receiver configured to receive wireless signals transmitted from respective ones of the plurality of communication devices, and when the first offset compensator is provided on each of the plurality of communication devices, the first offset compensator gives a frequency offset occurring during communications between the communication device provided with the first offset compensator and the relay device to a transmitter configured to transmit wireless signals to the relay device.