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(54) **PHASE SYNCHRONIZATION CIRCUIT, TRANSMISSION AND RECEPTION CIRCUIT, AND SEMICONDUCTOR INTEGRATED CIRCUIT**

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(57) **ABSTRACT**

A phase synchronization circuit includes: an oscillation circuit that includes a variable current generation unit that generates a variable current of a current amount corresponding to a control voltage and a fixed current generation unit that generates a fixed. current of a current amount corresponding to a correction code and generates an output clock signal having a frequency corresponding to the total current amount of the variable current and the fixed current; a feedback circuit that generates a feedback clock signal based on the output clock signal; a control voltage generation circuit that generates the control voltage to make a frequency of the output clock signal become a desired frequency in a normal operation mode; and a correction code generation circuit that generates the correction code in a calibration mode, in which in the calibration mode, the control voltage generation circuit outputs a fixed one of the control voltage.