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(54) **SEMICONDUCTOR DEVICE, DISPLAY APPARATUS, AND ELECTRONIC DEVICE**

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(57) **ABSTRACT**

A semiconductor device with reduced circuit area is provided. The semiconductor device includes first and second cell arrays and a first converter circuit. The first cell array includes a first cell and a second cell in the same row, and the second cell array includes third and fourth cells in the same row. The first cell is electrically connected to first and second wirings, the second cell is electrically connected to the first and third wirings, the third cell is electrically connected to fourth and sixth wirings, and the fourth cell is electrically connected to fifth and seventh wirings. The sixth wiring is electrically connected to the seventh wiring. The first to fourth cells each have a function of outputting current corresponding to a product of retained data and input data. Specifically, the first cell, the second cell, the third cell, and the fourth cell output current to the second wiring, the third wiring, the sixth wiring, and the seventh wiring, respectively. The first converter circuit has a function of making data corresponding to a total amount of current flowing through the second and third wirings flow to the fourth and fifth wirings, respectively.