WHAT IS CLAIMED IS:

1. A semiconductor device, comprising:

interlayer insulating layers and conductive patterns that are alternately stacked in a vertical direction;

first holes arranged in a first horizontal direction crossing the vertical direction and passing through the interlayer insulating layers and the conductive patterns;

second holes arranged in the first horizontal direction and passing through the interlayer insulating layers and the conductive patterns;

channel structures that are arranged between the first holes and the second holes, the channel structures passing through the interlayer insulating layers and the conductive patterns; and

vertical structures filling the first holes and the second holes and the vertical structures including protruding portions that protrude toward the adjacent conductive patterns,

wherein each of the conductive patterns extends a space between the first holes and a space between the second holes.

2. The semiconductor device of claim 1, wherein the first holes and the second holes are arranged in a zigzag pattern.

3. A semiconductor device, comprising:

interlayer insulating layers and conductive patterns that are alternately stacked in a vertical direction;

first holes arranged in a first horizontal direction crossing the vertical direction and passing through the interlayer insulating layers and the conductive patterns;

second holes arranged in the first horizontal direction and passing through the interlayer insulating layers and the conductive patterns;

channel structures that are arranged between the first holes and the second holes, the channel structures passing through the interlayer insulating layers and the conductive patterns;

a sidewall insulating layer covering a sidewall of each of the first and second holes; and

a conductive contact pillar filling each of the first and second holes and formed on the sidewall insulating layer,

wherein each of the conductive patterns extends a space between the first holes and a space between the second holes.

4. The semiconductor device of claim 3, wherein the first holes and the second holes are arranged in a zigzag pattern.