WHAT IS CLAIMED IS:

1. A substrate processing apparatus that performs processing on a substrate which is accommodated in a cassette and is to be transferred, comprising:

at least one transfer block configured to transfer the substrate in an interior of the at least one transfer block;

at least one substrate processing module configured to perform the processing on the substrate; and

a cassette transfer mechanism configured to transfer the cassette between a delivery position set on an outer surface of the substrate processing apparatus and a loading/unloading position at which the cassette is loaded into and unloaded from an interior of the substrate processing apparatus,

wherein the cassette transfer mechanism includes:

a stage on which the cassette is placed; and

a moving mechanism configured to move the cassette placed on the stage.

2. The substrate processing apparatus of Claim 1, wherein the cassette transfer mechanism includes:

a horizontal-plane motor including a plurality of first coils arranged on an upper surface of the transfer block; and

a horizontal transfer unit configured to move over the horizontal-plane motor while magnetically levitating over the horizontal-plane motor using a magnetic field generated by the plurality of first coils.

3. The substrate processing apparatus of Claim 2, wherein the cassette transfer mechanism further includes:

a vertical-plane motor including a plurality of second coils arranged on a side surface of the transfer block; and

a vertical transfer unit configured to move along the vertical-plane motor using a second magnetic field generated by the plurality of second coils.

4. The substrate processing apparatus of Claim 2 or 3, further comprising: an additional horizontal-plane motor installed between the upper surface of the transfer block and an upper surface of the at least one substrate processing module.

5. The substrate processing apparatus of Claim 2 or 3, further comprising: an additional horizontal-plane motor installed between an upper surface of the substrate processing apparatus and an upper surface of an additional substrate processing apparatus that performs the processing on the substrate which is accommodated in the cassette and is to be transferred.

6. The substrate processing apparatus of Claim 1, further comprising: a lifting mechanism configured to move the cassette upward and downward between a height position of an upper surface of the transfer block and a height position of an interior of the transfer block,

wherein the lifting mechanism has an interior configured to be switched between an atmospheric atmosphere and a vacuum atmosphere.

7. The substrate processing apparatus of Claim 1, wherein the cassette is transferred between an outside of of the substrate processing apparatus and the delivery position by an overhead transfer mechanism.

8. A transfer method of transferring a first cassette to a substrate processing apparatus,

wherein the substrate processing apparatus comprises:

at least one transfer block configured to transfer a substrate to be processed in an interior of the at least one transfer block;

at least one substrate processing module configured to perform processing on the substrate; and

a cassette transfer mechanism configured to transfer the cassette between a delivery position set on an outer surface of the substrate processing apparatus and a loading/unloading position at which the first cassette is loaded into and unloaded from an interior of the substrate processing apparatus, and

wherein the transfer method comprising:

delivering the first cassette, which is transferred from an outside of the substrate processing apparatus, to the cassette transfer mechanism at the delivery position;

moving the cassette transfer mechanism from the delivery position to the loading/unloading position; and

delivering the substrate accommodated in the first cassette to the substrate processing apparatus at the loading/unloading position.

9. The transfer method of Claim 8, wherein the moving the cassette transfer mechanism includes:

supplying a first current to a horizontal-plane motor including a plurality of first coils arranged on an upper surface of the transfer block;

magnetically levitating a horizontal transfer unit on which the first cassette is placed on the horizontal-plane motor using a magnetic field generated by the plurality of first coils; and

moving the horizontal transfer unit on the horizontal-plane motor by controlling the first current supplied to the plurality of first coils.

10. The transfer method of Claim 9, wherein the moving the cassette transfer mechanism includes:

supplying a second current to a vertical-plane motor including a plurality of second coils arranged on a side surface of the transfer block; and

moving a vertical transfer unit along the vertical-plane motor by controlling the second

current supplied to the plurality of second coils.

11. The transfer method of Claim 10, further comprising: temporarily making the first cassette standby at a buffer position, prior to moving the first cassette to the loading/unloading position when a second cassette is placed at the loading/unloading position,

wherein the buffer position is formed on the side surface of the transfer block.

12. The transfer method of Claim 8, wherein the first cassette is transferred between the outside of the substrate processing apparatus and the delivery position by an overhead transfer mechanism.