CLAIMS

1. A substrate processing system, comprising:

a factory interface forming a first interior volume;

a partition disposed in the factory interface, wherein the partition divides the first interior volume into a first factory interface chamber forming a second interior volume, and a second factory interface chamber forming a third interior volume, wherein the partition is configured to provide a first sealed environment in the first factory interface chamber and a second sealed environment in the second factory interface chamber;

a first load lock coupled to the first factory interface chamber;

a second load lock coupled to the second factory interface chamber; and

a transfer chamber coupled to the first load lock and to the second load lock.

2. The substrate processing system of claim 1, wherein the partition comprises an opening, and further comprising:

a first door disposed in the first factory interface chamber, wherein the first door is configured to cover the opening while closed to separate the second interior volume from the third interior volume and to provide at least one of the first sealed environment in the first factory interface chamber or the second sealed environment in the second factory interface chamber.

3. The substrate processing system of claim 2, further comprising:

a second door disposed in the second factory interface chamber, wherein the second door is configured to cover the opening while closed to separate the second interior volume from the third interior volume and to provide at least one of the first sealed environment in the first factory interface chamber or the second sealed environment in the second factory interface chamber.

4. The substrate processing system of claim 2, wherein the partition comprises a substrate pass-through station for passing substrates between the first factory interface chamber and the second factory interface chamber.

5. The substrate processing system of claim 4, wherein a first factory interface robot is configured to at least one of place a substrate onto the substrate pass-through station or retrieve the substrate from the substrate pass-through station.

6. The substrate processing system of claim 3, wherein a substrate pass-through station is positioned between the first door and the second door.

7. The substrate processing system of claim 2, wherein the first door is an L-shaped door capable of vertical and horizontal movement.

8. The substrate processing system of claim 1, further comprising:

a first factory interface robot disposed within the second interior volume of the first factory interface chamber; and

a second factory interface robot disposed within the third interior volume of the second factory interface chamber.

9. The substrate processing system of claim 8, wherein:

the first load lock is accessible by the first factory interface robot; and

the second load lock is accessible by the second factory interface robot.

10. The substrate processing system of claim 8, further comprising:

a first set of load ports coupled to the first factory interface chamber for receiving a first set of substrate carriers, wherein the first set of load ports are positioned to be accessible by the first factory interface robot; and

a second set of load ports coupled to the second factory interface chamber for receiving a second set of substrate carriers, wherein the second set of load ports are positioned to be accessible by the second factory interface robot.

11. The substrate processing system of claim 1, further comprising:

a first compartment housing electronic systems associated with the first factory interface chamber; and

a second compartment housing electronic systems associated with the second factory interface chamber.

12. The substrate processing system of claim 8, further comprising:

a substrate pass-through station situated in at least one of the first factory interface chamber or the second factory interface chamber for passing substrates between the first factory interface chamber and the second factory interface chamber, wherein the first factory interface robot is configured to at least one of place a substrate onto the substrate pass-through station or retrieve the substrate from the substrate pass-through station.

13. The substrate processing system of claim 12, wherein the substrate pass-through station comprises at least one substrate platform and an elevation component.

14. The substrate processing system of claim 1, further comprising:

a first alignment pedestal disposed within the second interior volume of the first factory interface chamber; and

a second alignment pedestal disposed within the third interior volume of the second factory interface chamber.

15. The substrate processing system of claim 1, further comprising:

a first recirculation system for recirculating gases within the second interior volume of the first factory interface chamber; and

a second recirculation system for recirculating gases within the third interior volume of the second factory interface chamber.