CLAIMS

What is claimed is:

1. An electronic package, comprising:

an interposer, wherein a cavity passes through the interposer;

a nested component in the cavity; and

a die coupled to the interposer by a first interconnect and coupled to the nested component by a second interconnect, wherein the first and second interconnects comprise:

a first bump;

a bump pad over the first bump; and

a second bump over the bump pad.

2. The electronic package of claim 1, wherein the bump pad of the first interconnect is substantially coplanar to the bump pad of the second interconnect.

3. The electronic package of claim 1, wherein the nested component and the interposer are embedded in an underfill layer and a first mold layer.

4. The electronic package of claim 3, wherein the die is embedded in a second mold layer.

5. The electronic package of claim 1, wherein the cavity is entirely within a footprint of the die.

6. The electronic package of claim 1, wherein a first portion of the cavity is within a footprint of the die, and wherein a second portion of the cavity is outside of the footprint of the die.

7. The electronic package of claim 1, wherein through component vias extend through the nested component.

8. The electronic package of claim 1, wherein the nested component is a passive component.

9. The electronic package of claim 1, wherein the nested component is an active component.

10. The electronic package of claim 1, further comprising:

a second die, wherein the second die is coupled to the nested component by a third interconnect comprising:

a first bump;

a bump pad over the first bump; and

a second bump over the bump pad.

11. The electronic package of claim 10, wherein the nested component electrically couples the first die to the second die.

12. The electronic package of claim 1, further comprising:

a second nested component in the cavity.

13. The electronic package of claim 1, wherein an active surface of the nested component faces away from the die.

14. The electronic package of claim 1, wherein the nested component comprises a plurality of stacked dies.

15. The electronic package of claim 1, wherein the interposer comprises a plurality of discrete interposer substrates, wherein edges of the plurality of discrete interposer substrates define the cavity.

16. The electronic package of claim 1, wherein the interposer comprises glass, ceramic, silicon, or organic materials.

17. An electronic package, comprising:

an interposer, wherein a cavity passes through the interposer;

a nested component in the cavity;

a die coupled to the interposer by a first interconnect and coupled to the nested component by a second interconnect, wherein the first and second interconnects comprise:

a first bump;

a second bump over the first bump; and

one or more redistribution layers, wherein the one or more redistribution layers are located over a top surface of the interposer, over a bottom surface of the interposer, over a top surface of the nested component, over a bottom surface of the nested component, over a mold layer that embeds the interposer and the nested component, and/or between the first bumps and the second bumps.

18. An electronic system, comprising:

a board;

a package substrate electrically coupled to the board;

an interposer electrically coupled to the package substrate, wherein the interposer comprises a cavity that passes through the interposer;

a nested component in the cavity, wherein the nested component is electrically coupled to the package substrate;

a first die electrically coupled to the interposer by a first plurality of interconnects and coupled to the nested component by a second plurality of interconnects; and

a second die electrically coupled to the interposer by the first plurality of interconnects and coupled to the nested component by the second plurality of interconnects, wherein the first and second plurality of interconnects comprise:

a first bump;

a bump pad over the first bump; and

a second bump over the bump pad.

19. The electronic system of claim 18, wherein the nested component electrically couples the first die to the second die.

20. The electronic system of claim 18, wherein the nested component is a passive component.

21. The electronic system of claim 18, wherein the nested component is an active component.

22. The electronic system of claim 18, wherein the nested component comprises a plurality of stacked dies.

23. A method of forming an electronic package, comprising:

forming first bump pads and second bump pads on a first carrier, wherein first bumps are disposed over the first bump pads and the second bump pads;

attaching an interposer to the first bumps above the first bump pads, wherein the interposer comprises a cavity that passes through the interposer;

attaching a nested component to the first bumps above the second bump pads, wherein the nested component is within the cavity of the interposer;

applying an underfill material around the interposer and the nested components;

applying a mold layer over the interposer and the nested component;

attaching a second carrier to the mold layer;

removing the first carrier;

exposing surfaces of the first bump pads and the second bump pads opposite from

the first bumps; and

attaching a die to the first bump pads and the second bump pads with second bumps.

24. The method of claim 23, further comprising:

applying a second mold layer over the die; and

removing the second carrier.

25. The method of claim 24, further comprising:

exposing package side package pads of the interposer and the nested component, wherein the package side package pads are embedded in the underfill material; and

attaching interconnects to the interposer and the nested component.