CLAIMS

What is claimed is:

1. An electronic package, comprising:

an interposer, wherein the interposer comprises:

a cavity that passes through the interposer;

a through interposer via (TIV); and

an interposer pad electrically coupled to the TIV;

a nested component in the cavity, wherein the nested component comprises a component pad;

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

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

an intermediate pad, wherein the intermediate pad is over a surface of the mold layer; and

a bump over the intermediate pad.

~~2. The electronic package of claim 1, further comprising:~~

~~a polymer layer over and around the interposer and the nested component.~~

~~3. The electronic package of claim 2, wherein the intermediate pads are over a surface of the mold layer.~~

42. The electronic package of claim 31, wherein the intermediate pad of the first interconnect is coupled to the interposer pad by a first via that passes through a portion of the mold layer, and wherein the intermediate pad of the second interconnect is coupled to the component pad by a second via that passes through a portion of the mold layer.

53. The electronic package of claim 31, wherein the intermediate pad of the first interconnect is directly connected to the interposer pad, and wherein the intermediate pad of the second interconnect is directly connected to the component pad.

64. The electronic package of claim 1, wherein a centerline of the first interconnect is offset from a centerline of the interposer pad, and wherein a centerline of the second interconnect is offset from a centerline of the component pad.

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

86. 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.

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

~~10~~8. The electronic package of claim 1, wherein the nested component is a passive component or an active component.

~~11~~9. 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:

an intermediate pad; and

a bump over the intermediate pad.

~~12~~10. The electronic package of claim ~~11~~9, wherein the nested component electrically couples the first die to the second die.

~~13~~11. The electronic package of claim 1, further comprising:

a second nested component in the cavity.

~~14~~12. The electronic package of claim 1, wherein an active surface of the nested component faces away from the die or faces towards the die.

~~15~~13. The electronic package of claim 1, wherein the nested component comprises a plurality of stacked dies.

~~16~~14. 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.

~~17~~15. The electronic package of claim 1, wherein the interposer comprises glass, ceramic, silicon, silicon carbide, alumina, or organic materials.

~~18~~16. The electronic package of claim 1, further comprising one or more redistribution layers, wherein the one or more redistribution layers are located over one or more of a top surface of the interposer, a bottom surface of the interposer, a top surface of the nested component, a bottom surface of the nested component, a top surface of a mold layer that embeds the interposer and the nested component, and a bottom surface of the mold layer.

~~19~~17. An electronic system, comprising:

a board;

an interposer electrically coupled to the board, wherein the interposer comprises a cavity that passes through the interposer, a through interposer via (TIV), and an interposer pad electrically coupled to the TIV;

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

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

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

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

comprise:

an intermediate pad, wherein the intermediate pad is over a surface of the mold layer; and

a bump over the intermediate pad.

~~20. The electronic system of claim 19, wherein the nested component electrically couples the first die to the second die.~~

~~21~~18. The electronic system of claim ~~19~~17, wherein the interconnects comprise a uniform bump pitch.

~~22~~19. The electronic system of claim ~~19~~17, further comprising:

a package substrate, wherein the package substrate is electrically coupled to the board, and wherein the interposer is electrically coupled to the package substrate.

~~23~~20. A method of forming an electronic package, comprising:

attaching an interposer to a carrier, wherein the interposer comprises a cavity that passes through the interposer, and a plurality of interposer pads;

attaching a nested component to the carrier, wherein the nested component sits within the cavity, and wherein the nested component comprises a plurality of component pads;

disposing a first mold layer over the interposer, the nested component, and the carrier;

disposing a plurality of intermediate pads over the first mold layer, wherein each

intermediate pad is electrically coupled to one of the interposer pads or one of the component pads;

disposing a plurality of bumps over each of the intermediate pads;

attaching a die to the bumps;

embedding the die in a second mold layer; and

removing the carrier.

~~24~~21. The method of claim ~~23~~20, further comprising:

forming a plurality of vias into the first mold layer, wherein each via electrically couples one of the intermediate pads to one of the component pads or one of the interposer pads.

~~25~~22. The method of claim ~~23~~20, wherein each intermediate pad is directly attached to one of the component pads or one of the interposer pads.