CLAIMS

What is claimed is:

1. An electronic package, comprising:

a reinforcement substrate;

a plurality of through substrate vias through the reinforcement substrate;

a dielectric substrate over the reinforcement substrate;

a cavity into the dielectric substrate; and

an embedded multi-die interconnect bridge in the cavity, and wherein the bridge electrically connects at least two dies.

2. The electronic package of claim 1, wherein the plurality of through substrate vias have a first pitch, and wherein the bridge has contacts at a second pitch that is smaller than the first pitch.

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

a dielectric layer over the bridge, wherein the dielectric layer fills the cavity.

4. The electronic package of claim 3, wherein a plurality of vias are formed through the dielectric layer.

5. The electronic package of claim 4, wherein the plurality of through substrate vias have a first pitch, and wherein the plurality of vias have a second pitch.

6. The electronic package of claim 5, wherein the first pitch is equal to the second pitch.

7. The electronic package of claim 6, wherein each of the through substrate vias is aligned with one of the plurality of vias.

8. The electronic package of claim 5, wherein the first pitch is different than the second pitch.

9. The electronic package of claim 8, wherein pitch translation from the first pitch to the second pitch is implemented in the dielectric substrate.

10. The electronic package of claim 1, wherein a Young's modulus of the reinforcement substrate is larger than a Young's modulus of the dielectric substrate.

11. The electronic package of claim 10, wherein the Young's modulus of the reinforcement substrate is between 60 GPa and 100 GPa.

12. The electronic package of claim 1, wherein a coefficient of thermal expansion (CTE) of the reinforcement substrate is between 2 ppm and 10 ppm.

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

a first die over the dielectric substrate; and

a second die over the dielectric substrate, wherein the first die is electrically coupled to the second die by the bridge.

14. The electronic package of claim 1, wherein an edge of the reinforcement substrate is recessed from an edge of the dielectric substrate.

15. An electronic system, comprising:

a board;

an interposer over the board; and

an electronic package over the interposer, wherein the electronic package comprises:

a reinforcement substrate;

a plurality of through substrate vias through the reinforcement substrate;

a dielectric substrate over the reinforcement substrate;

a cavity into the dielectric substrate; and

an embedded multi-die interconnect bridge in the cavity, and wherein the bridge electrically connects at least two dies.

16. The electronic system of claim 15, further comprising:

a first die over the electronic package; and

a second die over the electronic package.

17. The electronic system of claim 16, wherein the first die is electrically coupled to the second die by the bridge.

18. The electronic system of claim 15, wherein the electronic package further comprises:

a dielectric layer over the dielectric substrate, wherein vias are formed through the dielectric layer.

19. The electronic system of claim 18, wherein the plurality of through substrate vias have a first pitch, and wherein the vias have a second pitch.

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

attaching a glass layer to a carrier;

disposing a dielectric substrate over the glass layer;

embedding an embedded multi-die interconnect bridge in the dielectric substrate, wherein the bridge electrically connects at least two dies;

releasing the glass layer from the carrier; and

attaching a first die and a second die to the component.

21. The method of claim 20, wherein embedding the component in the dielectric substrate comprises:

forming a cavity in the dielectric substrate;

placing the bridge in the cavity; and

disposing a dielectric layer over the bridge.

22. The method of claim 210, wherein embedding the bridge in the dielectric substrate, comprises:

disposing a layer of the dielectric substrate over the glass layer;

placing the bridge on the layer of the dielectric substrate;

laminating one or more dielectric layers over the bridge.

23. The method of claim 20, wherein embedding the bridge in the dielectric substrate, comprises:

disposing the bridge directly on the glass layer; and

laminating one or more dielectric layers over the bridge.

24. The method of claim 21, wherein the electronic package is singulated prior to attaching the first die and the second die to the bridge.