SUMMARY

[0004] According to one aspect there is provided an electronic package, comprising: a substrate having a first side and a second side, the substrate configured to receive one or more electronic components; a first electronic component mounted to the first side of the substrate; a first mold structure extending over at least part of the first side of the substrate; a group of through-mold connections provided on the first side of the substrate, the through-mold connections substantially formed of a non-reflowable electrically conductive material; the first mold structure substantially encapsulating the group of through-mold connections; the group of through-mold connections exposed through the first mold structure.

[0005] In one example the first mold structure encapsulates at least part of the first electronic component.

[0006] In one example the electronic package further comprises a second electronic component mounted to the second side of the substrate; and a second mold structure extending over at least part of the second side of the substrate. In one example the second mold structure encapsulates at least part of the second electronic component.

[0007] In one example the non-reflowable electrically conductive material has a melting point of greater than 400 degrees Celsius, or greater than 500 degrees Celsius, or greater than 600 degrees Celsius, or greater than 700 degrees Celsius, or greater than 800 degrees Celsius, or greater than 900 degrees Celsius. In one example the non-reflowable electrically conductive material comprises or consists of any one or more of copper, nickel, gold and silver.

[0008] In one example the non-reflowable electrically conductive material comprises or consists of any one or more of tin, antimony and palladium.

[0009] In one example the non-reflowable electrically conductive material is formed of a non-solder material.

[0010] In one example the non-reflowable electrically conductive material is configured for soldering thereto.

[0011] In one example at least one of the group of through-mold connections is hollow. In one example a filler is provided inside of the hollow through-mold connection. In one example the filler comprises a plastic.

[0012] In one example an outer surface of the first mold structure is free of any moat or channel circumscribing and adjacent to each of the through-mold connections.

[0013] In one example at least one of the group of through-mold connections is recessed in a corresponding well defined in the first mold structure, a surface of the through-mold connection exposed by the well to define an exposed surface of the through-mold connection. In

a first sub-group of through-mold connections and a second sub-group of through-mold connections, the first sub-group substantially surrounding the second sub-group.

[0019] According to another aspect there is provided an electronic device, comprising: a circuit board configured to receive one or more electronic packages; and an electronic package mounted to the circuit board; the electronic package comprising: a substrate having a first side and a second side, the substrate configured to receive one or more electronic components; a first electronic component mounted to the first side of the substrate; a first mold structure extending over at least part of the first side of the substrate; a group of through-mold connections provided on the first side of the substrate, the through-mold connections substantially formed of a non-reflowable electrically conductive material; the first mold structure substantially encapsulating the group of through-mold connections; the group of through-mold connections exposed through the first mold structure.

[0020] In one example the electronic device is a wireless mobile device.

[0021] According to another aspect there is provided a method for manufacturing an electronic package, the method comprising steps of: providing a substrate having a first side and a second side, the substrate configured to receive one or more electronic components; arranging a group of through-mold connections on the first side of the substrate, the through-mold connections substantially formed of a non-reflowable electrically conductive material; mounting a first electronic component to the first side of the substrate; applying a first mold structure to the first side of the substrate such that the first mold structure extends over at least part of the first side of the substrate and substantially encapsulates the group of through-mold connections; and removing a portion of the first mold structure to expose the group of through-mold connections.

[0022] In one example the step of applying a first mold structure to the first side of the substrate comprises encapsulating at least part of the first electronic component in the first mold structure.

[0023] In one example the method further comprises steps of mounting a second electronic component to the second side of the substrate; and applying a second mold structure to the second side of the substrate such that the second mold structure extends over at least part of the second side of the substrate. In one example the step of applying a second mold structure to the second side of the substrate comprises encapsulating at least part of the second electronic component in the second mold structure.

[0024] In one example the non-reflowable electrically conductive material has a melting point of greater than 400 degrees Celsius, or greater than 500 degrees Celsius, or greater