MicroSATA and MicroSAS connectors only require 9 power contacts. MicroSAS connectors have an additional 2 contacts ("auxiliary contacts") for diagnostic or auxiliary use.

MicroSATA and MicroSAS connectors currently available in the market generally require a different layout of conductive pads (or "footprint") on a mounting substrate, such as, e.g., a printed circuit board. In addition, MicroSAS connectors currently available in the market generally require a mounting substrate whereby conductive pads are disposed on both sides of the substrate.

SUMMARY

In at least one aspect, the present invention provides a substrate comprising a first plurality of conductive pads disposed on a first side of the substrate and a different second plurality of conductive pads disposed on the first side of the substrate. Each conductive pad in the first plurality of conductive pads is configured to make electrical contact with a corresponding contact of a MicroSAS plug connector when the MicroSAS plug connector is mounted onto the substrate. There is a one-to-one correspondence between the contacts in the MicroSAS plug connector and the conductive pads in the first plurality of conductive pads. Each conductive pad in the second plurality of conductive pads is configured to make electrical contact with a corresponding contact of a MicroSATA plug connector when the MicroSATA plug connector is mounted onto the substrate. There is a one-to-one correspondence between the contacts in the MicroSATA plug connector and the conductive pads in the second plurality of conductive pads. At least one conductive pad belongs to both the first and second pluralities of conductive pads.

~~In at least one aspect, the present invention provides a plastic cover for covering at least portions of contact tails of a surface mount connector. The plastic cover comprises a top surface and a structured bottom surface comprising a plurality of elongated spaced apart parallel ridges defining a plurality of elongated parallel channels therebetween. The channels extend from a front side of the plastic cover toward an opposite back side of the plastic cover. Each channel corresponds to a different contact tail of the surface mount connector and is configured to cover the contact tail along at least a portion of a length of the contact tail, such that when the surface mount connector is mounted, the plastic cover is placed in a position so that the back side of the plastic cover is near and along a mounting face of the surface mount connector resulting in each contact tail of the surface mount connector being housed within a different channel.~~

The above summary of the present invention is not intended to describe each disclosed embodiment or every implementation of the present invention. The details of one or more embodiments of the present invention are set forth in the accompanying drawings and the detailed description below. Other features, objects, and advantages of the invention will be apparent from the detailed description and drawings, and from the claims.

7. The substrate of claim 1, wherein each conductive pad in the first plurality of conductive pads is configured to make electrical contact with a corresponding contact of a low profile surface mount MicroSAS plug connector when the low profile surface mount MicroSAS plug connector is mounted onto the substrate.

8. The substrate of claim 1, wherein each conductive pad in the second plurality of conductive pads is configured to make electrical contact with a corresponding contact of a low profile surface mount MicroSATA plug connector when the low profile surface mount MicroSATA plug connector is mounted onto the substrate.

~~9. A plastic cover for covering at least portions of contact tails of a surface mount connector, the plastic cover comprising a top surface and a structured bottom surface comprising a plurality of elongated spaced apart parallel ridges defining a plurality of elongated parallel channels therebetween, the channels extending from a front side of the plastic cover toward an opposite back side of the plastic cover, each channel corresponding to a different contact tail of the surface mount connector and being configured to cover the contact tail along at least a portion of a length of the contact tail, such that when the surface mount connector is mounted, the plastic cover is placed in a position so that the back side of the plastic cover is near and along a mounting face of the surface mount~~

~~connector resulting in each contact tail of the surface mount connector being housed within different channel.~~

~~10. The plastic cover of claim 9, wherein at least two ridges in the plurality of elongated spaced apart parallel ridges have different widths.~~