

ABSTRACT OF THE DISCLOSURE

5 **CONDUCTIVE VIAS HAVING TWO OR MORE ELEMENTS FOR
PROVIDING COMMUNICATION BETWEEN TRACES IN DIFFERENT
SUBSTRATE PLANES, SEMICONDUCTOR DEVICE ASSEMBLIES
INCLUDING SUCH VIAS, AND ACCOMPANYING METHODS**

Electronic devices include a substrate with first and second pairs of conductive traces extending in or on the substrate. A first conductive interconnecting member
10 extends through a hole in the substrate and communicates electrically with a first trace of each of the first and second pairs, while a second conductive interconnecting member extends through the hole and communicates electrically with the second trace of each of the first and second pairs. The first and second interconnecting members are separated from one another by a distance substantially equal to a distance separating the
15 conductive traces in each pair. Electronic device assemblies include a transmitting device configured to transmit a differential signal through a conductive structure to a receiving device. The conductive structure includes first and second pair of conductive traces with first and second interconnecting members providing electrical communication therebetween.

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[FIG. 2]