

ABSTRACT

The disclosure relates to a semiconductor die, a semiconductor device and a method for forming a semiconductor device. The semiconductor die includes: a substrate including a top surface and a bottom surface; and a plurality of pairs of signal via groups independent of each other, a plurality of signal via groups being arranged in the substrate and spaced apart from each other, two signal via groups in each pair of signal via groups are distributed symmetrically with respect to an axis located on the top surface of the substrate, one of the two signal via groups being distributed in a first region arranged on one side of the axis, and another one of the two signal via groups being distributed in a second region arranged on another side of the axis, the axis being parallel to a first direction or a second direction, each signal via group including a plurality of signal vias arranged in a polygonal shape, any two signal vias in each signal via group being electrically isolated from each other, and each signal via penetrating through the substrate along a third direction.

[Fig. 4B]