

UPGRADEABLE AND REPAIRABLE SEMICONDUCTOR PACKAGES AND METHODS

ABSTRACT OF THE DISCLOSURE

A semiconductor device package includes a carrier, one or more semiconductor devices on the carrier, and a redistribution element above the uppermost of the one or more semiconductor devices. The redistribution element includes an array of contact pads
5 that communicate with each semiconductor device of the package. The package may also include an encapsulant, through which the contact pads of the redistribution element are at least electrically exposed. Methods for assembling and packaging semiconductor devices, as well as methods for assembling multiple packages, including methods for replacing the functionality of one or more defective semiconductor devices of a package according to
10 embodiments of the present invention, are also disclosed.

Figure 1