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**Jeong**(10) **Pub. No.: US 2024/0213179 A1**(43) **Pub. Date: Jun. 27, 2024**(54) **SEMICONDUCTOR PACKAGE HAVING  
REINFORCING STRUCTURE**(71) Applicant: **Samsung Electronics Co., Ltd.**,  
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**ABSTRACT**

A semiconductor package comprising a stack structure disposed on a package substrate and that includes a lower structure and an upper structure on the lower structure, the upper structure including a plurality of semiconductor chips offset from each other in a first horizontal direction and stacked in a cascade structure, a reinforcing structure on the upper structure and including a reinforcing chip and an interfacial layer covering an upper surface of the reinforcing chip, and an encapsulant covering the package substrate. The plurality of semiconductor chips include a first semiconductor chip disposed directly below the reinforcing structure and a second semiconductor chip disposed directly below the first semiconductor chip. The reinforcing structure covers an overhanging portion of the first semiconductor chip in which the first semiconductor chip does not overlap the second semiconductor chip in a vertical direction, and the interfacial layer and the encapsulant include the same material.

