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Geng et al.(10) **Pub. No.: US 2024/0179832 A1**(43) **Pub. Date: May 30, 2024**(54) **MULTI-ENTRY SOCKET POWER DELIVERY
STRUCTURE AND BACKPLATE**(21) Appl. No.: **18/435,821**(22) Filed: **Feb. 7, 2024**(30) **Foreign Application Priority Data**

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(2013.01); **H05K 2201/2009** (2013.01)(57) **ABSTRACT**

A multi-entry socket power delivery structure is attachable to a printed circuit board to provide improved delivery of one or more power supply signals to a socket. The power delivery structure provides an additional path for power supply signals to be delivered to a socket (in addition to the “power corridor” of the printed circuit board). The power delivery structure comprises one or more portions, with individual portions comprising a printed circuit board connection portion that attaches to the printed circuit board to receive a power supply signal generated by a voltage regulator, and a socket connection portion that attaches to the printed circuit board to deliver the power supply signal to the socket via the printed circuit board. The power delivery structure can be located in the recess of a reinforced backplate that provides structural integrity to a processor stack and associated thermal management solution loading mechanism.

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