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(54) **THREE-DIMENSIONAL NAND MEMORY
DEVICE AND METHOD OF FORMING THE
SAME**

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(57) **ABSTRACT**

A semiconductor device includes Number of decks that are stacked up in a Z direction and extend in parallel with an X-Y plane. N is an integer greater than 1. Each deck includes alternating word line layers and insulating layers. The N number of decks includes a first deck and a second deck adjacent to the first deck. A multi-deck gate line slit (GLS) structure extends in an X-Z plane and cuts through the word line layers and the insulating layers of the N number of decks. The multi-deck GLS structure has a first sidewall in the first deck, a second sidewall in the second deck, and a third sidewall at a border between the first deck and the second deck. The third sidewall connects the first sidewall and the second sidewall.

