

Title (en)  
THREE-DIMENSIONAL MEMORY DEVICE WITH THICKENED WORD LINES IN TERRACE REGION AND METHOD OF MAKING THEREOF

Title (de)  
DREIDIMENSIONALE SPEICHERVORRICHTUNG MIT VERDICKTEN WORTLEITUNGEN IN DER TERRASSENREGION UND VERFAHREN ZU DEREN HERSTELLUNG

Title (fr)  
DISPOSITIF DE MÉMOIRE TRIDIMENSIONNEL AVEC LIGNES DE MOTS PLUS ÉPAISSES DANS UNE RÉGION DE TERRASSE ET SON PROCÉDÉ DE FABRICATION

Publication  
**EP 3711092 A1 20200923 (EN)**

Application  
**EP 18878898 A 20180921**

Priority  
• US 201715813579 A 20171115  
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Abstract (en)  
[origin: WO2019099103A1] A three-dimensional memory device includes an alternating stack of insulating layers and electrically conductive layers located over a substrate. Memory stack structures are located in a memory array region, each of which includes a memory film and a vertical semiconductor channel. Contact via structures located in the terrace region and contact a respective one of the electrically conductive layers. Each of the electrically conductive layers has a respective first thickness throughout the memory array region and includes a contact portion having a respective second thickness that is greater than the respective first thickness within a terrace region. The greater thickness of the contact portion prevents an etch-through during formation of contact via cavities for forming the contact via structures.

IPC 8 full level  
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