

Title (en)

NON-VOLATILE MEMORY DIE WITH DEEP LEARNING NEURAL NETWORK

Title (de)

NICHTFLÜCHTIGE SPEICHERMATRIX MIT TIEFENLERNENDEM NEURONALEN NETZ

Title (fr)

PUCE DE MÉMOIRE NON VOLATILE À RÉSEAU NEURONAL À APPRENTISSAGE PROFOND

Publication

**EP 3756186 A2 20201230 (EN)**

Application

**EP 19888248 A 20190906**

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- US 2019050105 W 20190906

Abstract (en)

[origin: WO2020117348A2] Exemplary methods and apparatus are provided for implementing a deep learning accelerator (DLA) or other neural network components within the die of a non-volatile memory (NVM) apparatus using, for example, under-the-array circuit components within the die. Some aspects disclosed herein relate to configuring the under-the-array components to implement feedforward DLA operations. Other aspects relate to backpropagation operations. Still other aspects relate to using an NAND-based on-chip copy with update function to facilitate updating synaptic weights of a neural network stored on a die. Other aspects disclosed herein relate to configuring a solid state device (SSD) controller for use with the NVM. In some aspects, the SSD controller includes flash translation layer (FTL) tables configured specifically for use with neural network data stored in the NVM.

IPC 8 full level

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