

NEUROMORPHIC VISION SENSOR FOR IMAGE PRE-PROCESSING

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Conventional digital image sensor generates large redundant data and occupy huge storage space with high power consumption. By adopting an optoelectronic memory synaptic device, this novel neuromorphic vision sensor has the potential to help solve this problem through direct image pre-processing at the sensing devices. This technology incorporates directly image storage and pre-processing functions into image sensors, achieving a breakthrough in hardware-based artificial vision. In addition, it can be beneficial for the future development of edge computing and largely reduce the image processing load at the cloud.

NOVEL FEATURES

- * Integrates visual information detection, storage and pre-processing functions
- * Enhances the area efficiency and image processing efficiency
- * Reduces the image processing load at the cloud
- * Lowers electric loss during data transmission

