

## **Object Detection @ 1 mW: Achieving Always-On Computer Vision at the Edge**

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Qualcomm Research has pioneered an Always-on Computer Vision Module (CVM) product based on a holistic approach combining innovations in the system architecture, ultra-low power design, and dedicated hardware for vision algorithms running at the edge. With low end-to-end power consumption (< 1 mW), a tiny form factor, and low cost, the CVM can be integrated into a wide range of battery- and line-powered devices (IoT, mobile, VR/AR, automotive, etc.), performing various computer vision tasks. This poster presents the underlying technology behind the CVM, applications enabled by this technology, and the unique challenges associated with the customer products. It also presents the efficient computer vision algorithms that run on the CVM, such as object detection, gesture recognition, and change detection, as well as the software tools available for training, tuning, and evaluating new