SIAM EDGE SILICON

Smart-Camera Evaluation Brief

Proposed pilot for device manufacturers and engineering partners. Specifications and results are pending.

Objective

Compare local person detection on commercially available hardware against a partner baseline under matching test conditions.

Evaluation architecture

Image sensor → local inference → host MCU or camera firmware → wireless alert. A future module could take over local inference.

Measurements and acceptance criteria

Standby and deep sleep. Record whole-device standby power and deep-sleep current at the stated supply voltage.

Active power and energy. Record average active inference power and energy per wake-to-decision cycle, including sensor and host. Record radio energy separately.

Wake-to-decision latency. Report median and 95th-percentile time from the agreed trigger to the detection decision.

Detection quality. Measure missed detections and false alerts on labeled day and night scenes held out from model tuning.

Memory and integration. Record model storage, peak runtime RAM, board area, and estimated component cost at an agreed volume.

Agree numerical thresholds, duty cycle, scenes and cost assumptions with the device partner before testing.

Inputs and deliverables

Bring a target device, current hardware, representative operating conditions and the main battery or latency constraint. The pilot deliverable is a baseline comparison, an integration assessment and a recommendation on whether a custom design merits further work.

Contact: info@siamedgesilicon.com