



Oculi  
Ultra-Fast and Efficient Smart Vision

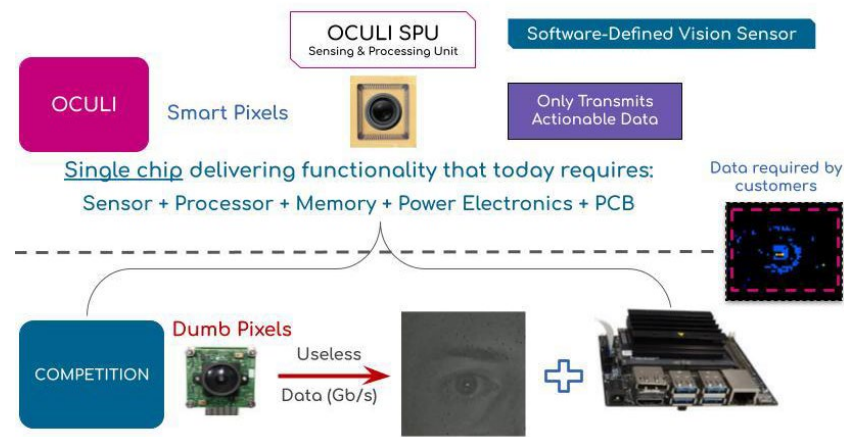
### Company

Oculi® is a fabless company with an experienced team of semiconductor and vision experts, a spin-out of Johns Hopkins University, where the founder developed the underlying technology. Oculi enables vision solutions with the efficiency of human vision and the speed of machines. Oculi's Technology will ultimately power "Smart" Anything.

### Problem

Data deluge from imaging sensors, a decades-old challenge rooted in inefficient machine vision architecture. Sensors and processors have evolved but the architecture remained the same. Sensors continuously transmit useless data (Gb/s) resulting in high latency and power consumption. Dumb imaging sensors may be cheap but everything else in the signal processing chain is becoming too expensive.

### Solution




OCULI SPU™ enables computer/ machine vision with ultra-low latency and power efficiency by embedding intelligence starting at the pixel, the true edge. It solves the sensor data deluge (Gb/s) problem by only transmitting actionable data (Kb/s). It also enables real-time optimization across the key trade offs (power, latency, bandwidth). The OCULI SPU is the only single-chip Software-Defined Vision Sensor™ that delivers actionable data with ultra-low latency (can track a bullet in flight in 3D) and consume only mW's in power.

The OCULI SPU has parallel, in-memory computation, and dynamic optimization with real privacy protection at the source. The core technology has been proven in silicon with well protected IP.

### Market Opportunities

Our initial focus are OEM's, and tier 1 manufacturers that find our technology solving fundamental challenges and delivering new capabilities in smart/interactive, gaming and AR/VR market.


AR/VR, Gaming

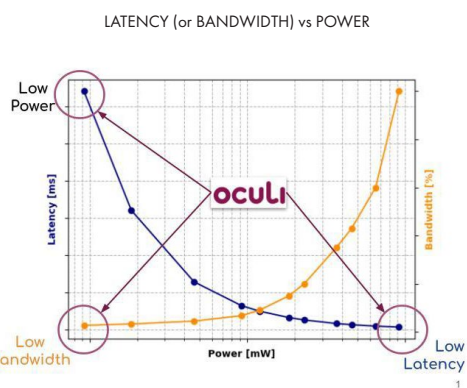


Oculi can deliver

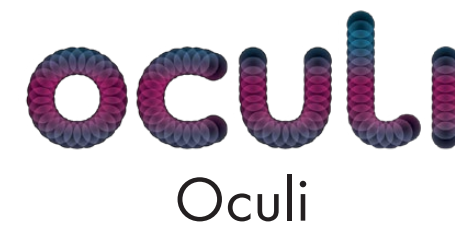
Real-time, Low power:  
 Eye, Gesture, Face, People Tracking

Smart/Interactive, Gaming

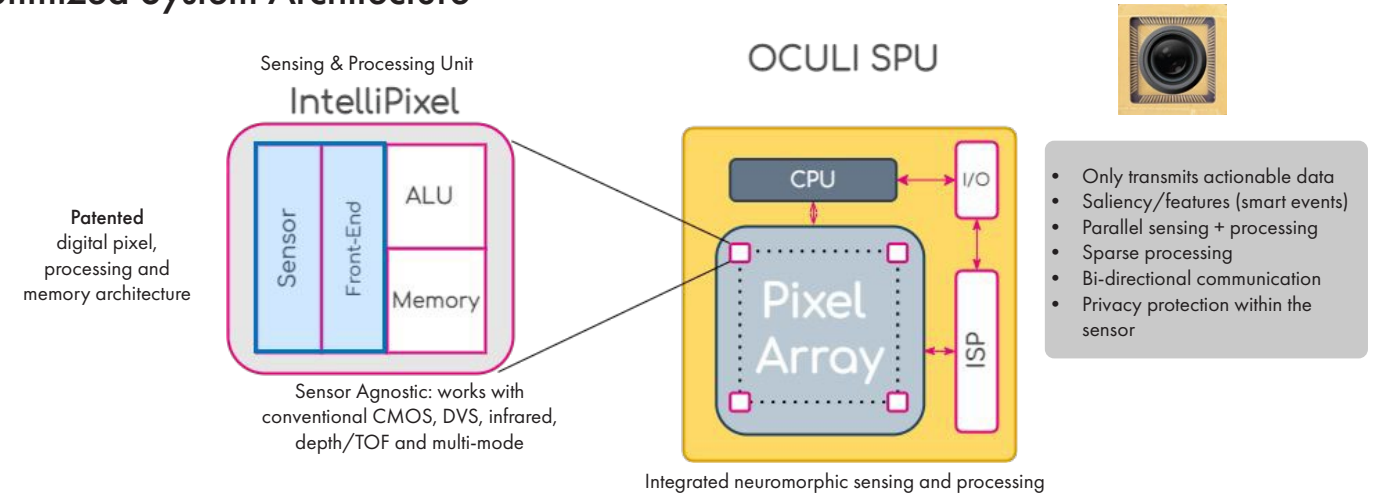




Oculi enables a natural & immersive user experience under any lighting conditions, indoors and outdoors, with up to 30x reduction in power consumption and latency with a lower bill of materials.



### Optimized System Architecture



### Competition

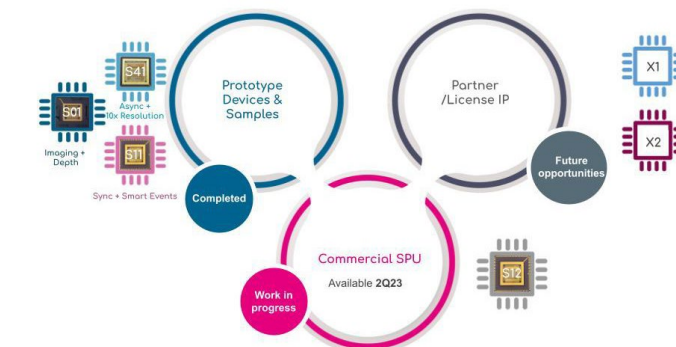
Machine vision to date involve a conventional architecture (dumb image sensor + processing platform). Latency and power consumption requirements are becoming more challenging so this approach quickly becomes too complex and expensive. The growth in edge processing is a strong indicator the market has a problem and is searching for a solution. However, bringing the processing closer does not solve the fundamental problem of the sensor data deluge and corresponding latency and power consumption, it only shortens the wires between them.

### Business Model

We are a B2B chip / module supplier, engaging OEM's and Tier 1 product manufacturers as well as channel partners that are primary in the supply chain for such products. We have developed a user-friendly Vision Intelligence (VI) Platform that enables our customers to quickly evaluate the Oculi technology and also develop their products that embed the technology.



### Product Roadmap



### Patents

Oculi has developed an extensive IP portfolio and holds an exclusive global license to 4 fundamental domestic and international patents from the Johns Hopkins University.

The Planet Needs The "Human Eye" in AI

