ActiveLook®

Visual Information in Action

Head-up Display Platform for Sport Glasses

GLOBAL SPORTS WEEK PARIS

Lite AR – HUD Smart Glasses Requirements

Weight <40g
Comfort during physical activities is a need to have!

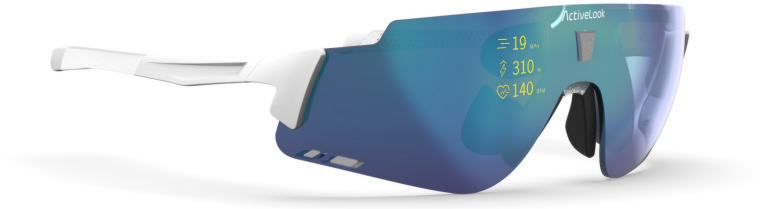
Good Design
(Sports) Glasses are a fashion item

Autonomy
>8 hours for most of physical activities and use all day long

Content Visibility
Need good content visibility during bright day light and night

Non intrusive
Unblock peripheral vision and central vision for safety and “stay in the Flow”

Relevant Content
Wide variety of content for multiple use case and user segments.



ActiveLook® by microoled

ActiveLook® : the components

Optical System
High precision micro-projector

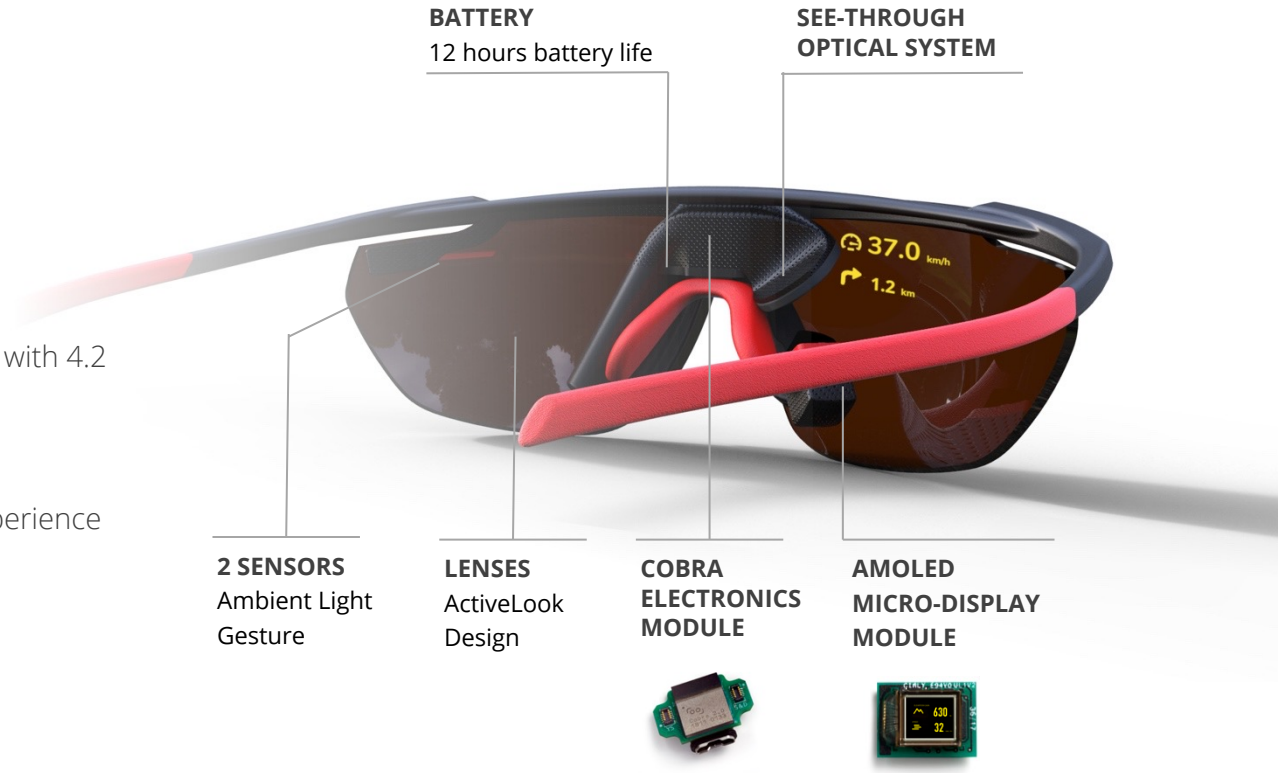
Display
Low power (1mW) 0.19’ AMOLED

Electronics
Dialog based ”Smart Wearable on Chip” with 4.2 BLE

Lenses
Custom coatings to maximize visual experience

Sensors
Ambient light and gesture sensors

Battery
12 hours autonomy



The 1mW OLED micro-display

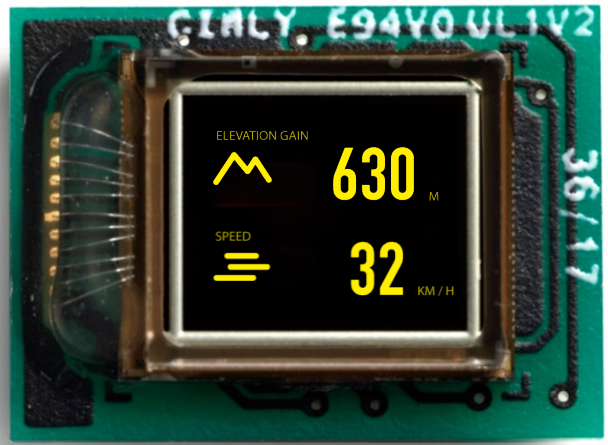
Low power: typ. 1mW , made possible because of “memory pixel” design to avoid need for refresh scanning

Compact: 0.19” with extremely high pixel density

High Brightness: Efficient “Yellow” color OLED compound with tandem architecture.

Resolution: 304 x 256 pixels enabled by extremely high pixel density.

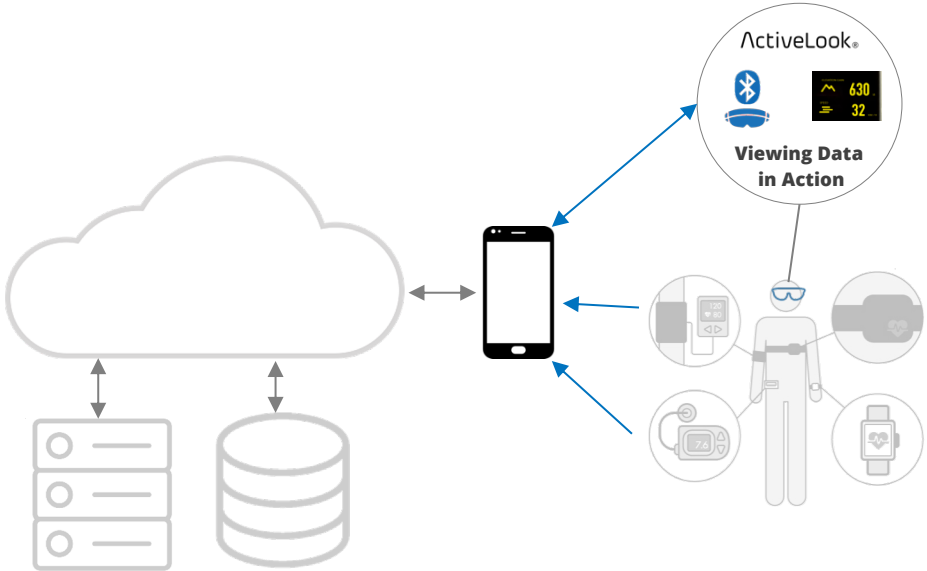
Color: 16 “grey” levels (development in progress for a 16 colors version)



A “smart” architecture

A low power BLE “Connected Display” …

… part of smart & wearable architecture



ActiveLook® : a Smart Glasses Product Platform

Content Ecosystem
(Partners)

Sensors

Devices

Apps / SW / FW

Works with ActiveLook®

ActiveLook®
Technology Platform

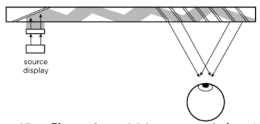
Open & Free API
-
BLE Profile designed for low power display management

Microoled System In Package
-
Display Driver
BLE Com.
Firmware

Microoled AMOLED Micro-Display
-
High Brightness Low Power
(Color)

Optical Engines

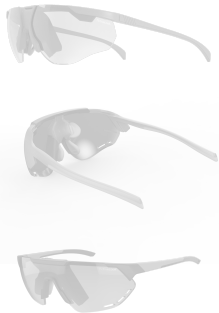
Lenses



(Reflective Waveguides)

Eyewear
(Customers)

powered by ActiveLook®



Augmented Reality Market Segmentation

ActiveLook® is the only technology to enables display in Lite AR segment

Advanced AR (SLAM)	Basic AR (smart HUD)	Lite AR (wearable)	Hollywood AR (SciFi)
			
CPU: "Gamer PC" like Display: Hidef Microsoft HoloLens magic leap AR	CPU: "smartphone" like Display: Hidef VUZIX nreal EPSON Google GLASS	CPU: "companion device" like Display: Compact & Low Power ActiveLook® --- Ray-Ban | FACEBOOK (NO Display !)	"Gamer PC + 5G + AI" in glasses Display: HiDef

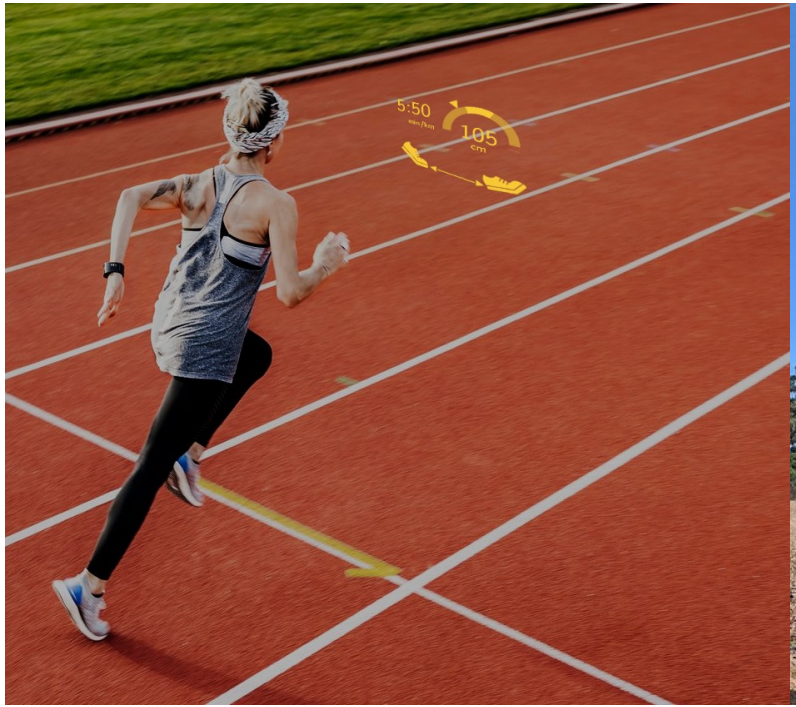
PERFORMANCE

COMFORT & DESIGN

ActiveLook® : coaching & motivation

ActiveLook® : Wearables Bio-Feedback

Visual feedback is widely used to modify a motor skill. Current feedback modalities are complex and un-practical.
ActiveLook technology can greatly improve visual biofeedback: Technique Training, Rehabilitation, Retraining (Gait, Stride, ...)




Thank you!
ActiveLook®
by microoled