

# Aurora



## Big insights come in small packages

Looking for a research partner that can follow you anywhere? Aurora, Smart Eye's smallest remote eye tracker, is designed to deliver big insights wherever you are.

Aurora brings portability, versatility and superior performance, all while collaborating with other sensors and bio-measurement systems for a more accurate and user friendly research experience.

## Technical Specifications

<b>Sampling rate</b>	60, 120 and 250 Hz
<b>Headbox (Freedom of Head Movement)</b>	50 x 40 cm at 65 cm distance
<b>Operating distance</b>	50-80 cm
<b>Accuracy</b>	0.3 degrees (typ.)
<b>Precision</b>	0.1 degrees (typ.)
<b>Output data</b>	Gaze origin, gaze point, pupil diameter, eyelid opening, head position and rotation, camera-time and real-time time stamp  All outputs as binocular data with associated quality index
<b>Gaze calibration</b>	Both eyes or single eye
<b>Time Stamp Precision</b>	1 $\mu$ s
<b>Synchronization</b>	8-bit markers*
<b>Head pose recovery time</b>	1 frame (immediate)
<b>Blink recovery time</b>	1 frame (immediate)
<b>Gaze recovery time</b>	1 frame (immediate)

<b>Latency</b>	25 ms (60 Hz), 17ms (120 Hz), 12ms (250Hz)
<b>Eye Tracking Principle</b>	Dark pupil and corneal reflection
<b>Maximum Screen Size</b>	24" (16:9 aspect ratio)
<b>Operating environment</b>	Indoor (all illumination conditions)
<b>Size</b>	146 x 24 x 27 mm (width x height x depth)
<b>Weight</b>	162 g
<b>Cable Length</b>	2 m (up to 8m with additional hardware**)
<b>Camera Interface</b>	USB-C
<b>Mount Type</b>	On-screen (mounting plate included)
<b>Operating System</b>	Windows 10 or Windows 11
<b>Processor Architecture</b>	x64
<b>Accessories</b>	Aurora Expansion Box (8-bit markers) Extended USB-C cable

\*Requires Aurora Expansion Box accessory

\*\*Cable length limited to 2m for Aurora 250 Hz connected to Expansion Box

## Expansion Box Technical Specifications



<b>Marker type</b>	8-bit word
<b>Physical marker interface</b>	D-Sub DB9 female
<b>Electrical marker interface</b>	3-30V will pull a bit high
<b>Marker accuracy</b>	22 us delay from electrical signal change until marker time-stamped
<b>Power supply</b>	Powered from the eye tracker connection
<b>Eye tracker compatibility</b>	All new generation Auroras with 'smart eye' print on the front
<b>Compatibility</b>	Chronos (Psychology Software Tools) StimTracker (Cedrus)
<b>Dimensions</b>	Width 104mm Length 135mm (incl. connectors) Height 34mm (incl. feet)
<b>Weight</b>	258g

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