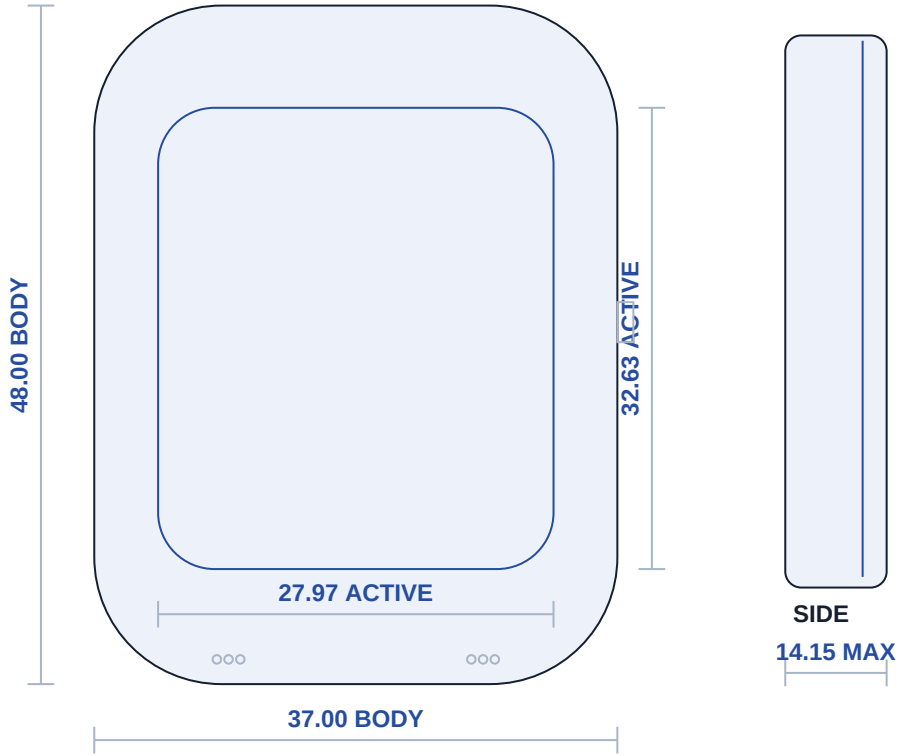
Aero Locket Screen

Overall fit, display envelope, and removable upper case

FRONT · CORE WITH LID REMOVED



A / DISPLAY

1.69-inch, 240 x 280 px reference module.
Glass and front seal stay on the core.

B / HINGE AND UPPER CASE

108-degree opening travel. Two service screws release the collar, lid and hinge as one assembly.

C / AUDIO AND INDICATOR

18.00 mm between microphone port centre lines.
Indicator is below the lid edge. Mute is on the side.

D / MOUNTS

22.00 mm watch interface. Two rear rails with 0.22 mm nominal clearance per side.

CHECK ON THE FIRST PRINT

Maximum closed envelope 39.48 x 48.30 x 14.15 mm.
Nominals describe CAD. Set tolerances after a fit print.

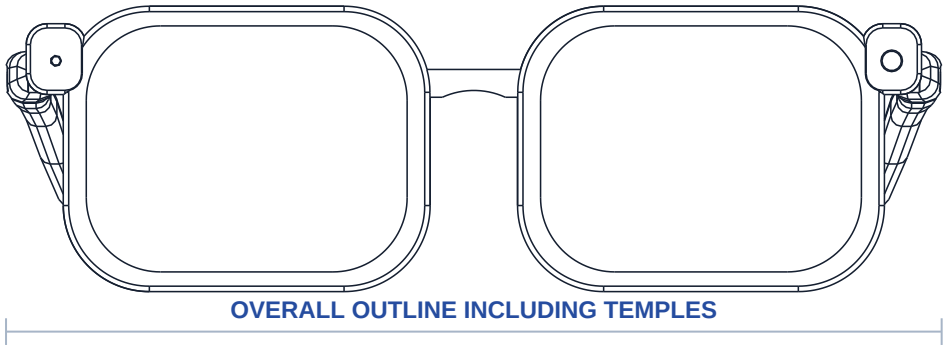
Aero Glasses

R02

Everyday frame, lens gauges, flush windows, and slim temples



FRONT ORTHOGRAPHIC / OUTER ENVELOPE



A / FRAME

135.20 mm across the front frame.
Bridge centreline is datum A for assembly symmetry.

B / LENS GAUGES

49.40 mm nominal lens, 19.20 mm bridge.
Use a qualified lens sample for face fit.

C / TEMPLES

131.10 mm between hinge centres.
Independent geometry checks at 0, 12 and 24 degrees.

D / CAMERA AND INDICATOR

3.26 mm camera opening, 1.64 mm indicator opening.
Both sit flush in the frame shoulders.

E / SERVICE ACCESS

Low-profile left and right access doors.
A narrow electronics fit remains a separate task.

Parts and inspection

Aero Locket Screen R01 / STEP assemblies 010 watch, 020 pendant, 030 keyring, 040 clip

Part ID / rev	Description	Candidate material	Inspect at fit build
RX-AL-101-R01	Rear core	Polymer	Charge pads, rail and optical opening
RX-AL-102-R01	Display frame	Polymer	Touch glass pocket and mic bores
RX-AL-201-R01	Upper collar	6061 Al candidate	Two service screw holes
RX-AL-202-R01	Hinged lid	6061 Al candidate	Opaque top with inlay recess
RX-AL-301-R01	Watch saddle	Polymer	Strap bars and optical window
RX-AL-302-R01	Pendant saddle	Polymer	Pendant loop
RX-AL-303-R01	Keyring saddle	Polymer	Split-ring interface
RX-AL-304-R01	Shirt clip	Fit gauge	Spring validation required

PROTOTYPE ACCEPTANCE

01 Measure the shell, display pocket and rail clearances. Align the pins with the empty core before applying a load.

02 Cycle the lid and removals. Inspect hinge pin seating, lid edge, mount retention, and unobstructed mic bores.

03 Record material, process, batch and measured fit. Reserve a flat label area; never cover the ports or the antenna.

04 Use an inert core. Validate cell protection, charge, temperature, ingress and RF on separate powered fixtures.

Parts and inspection

Aero Glasses R02 / STEP assembly RX-AG-000-R02 / open frame fit

Part ID / rev	Description	Candidate material	Inspect at fit build
RX-AG-101-R02	Front frame	Polymer	Lens pockets and pin bores
RX-AG-201-R02	Right temple	Polymer	Hinge and cartridge pocket
RX-AG-202-R02	Left temple	Polymer	Mirrored hinge and pocket
RX-AG-401-R02	Right service door	Polymer	Inspect latch and finish
RX-AG-402-R02	Left service door	Polymer	Inspect latch and finish
RX-AG-501-R02	Left lens gauge	Clear gauge	Inert fit check
RX-AG-502-R02	Right lens gauge	Clear gauge	Inert fit check

PROTOTYPE ACCEPTANCE

01 Check both lenses, bridge symmetry and pivot clearance without load. Confirm the camera cover is opaque.

02 Fit each temple and service door. Mark left and right on the inside after verifying the datum and hinge.

03 Log frame spread, hinge torque, pull force, measured mass and drawing revision for the first fit print.

04 Keep electronics off-head until thermal, optical, RF and camera-indicator tests pass on the bench.

Aero Signal

Inert over-ear fit assembly and artificial-signal interface



RX-AS-000-R01 • 14-solid STEP assembly

A / CUP SHELLS 101 AND 103

75.00 x 92.00 mm nominal face.
Complete envelope 199 x 183.5 x 75 mm.

B / SENSOR GUIDES 102 AND 104

Four inert guides per ear. Import only artificial or approved bench signal windows into the demo.

C / HEADBAND GAUGE 105

Rigid gauge for desk and headform use.
Check seating of the cushion before fit testing.

D / ELECTRONICS TEST

RX-AS-P01 passive phantom adapter.
No electrode drive or patient isolation.

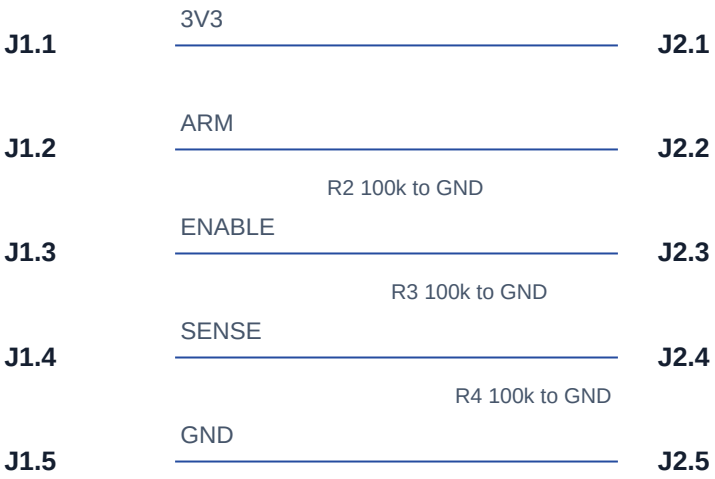
RESEARCH GATE

Measure repeatable signal quality on a fixture.
Body-connected work requires an approved setup.

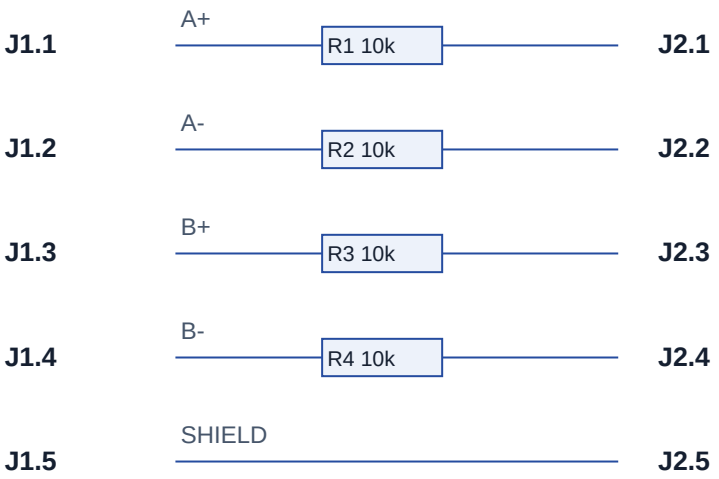
Bench electronics

Pinout and circuit reference for the powered-logic and passive-signal fixtures

RX-AW-P01 / 45 x 39 mm



RX-AS-P01 / 36 x 34 mm



USB LOGIC ONLY

Drive and sense are 3.3 V. All outputs default low.
Use high-impedance probes and a common ground.

ARTIFICIAL SIGNAL ONLY

Optional C1 across A+/A-. Optional C2 across B+/B-.
No human connection. No active electrode bias.

Reference drawings accompany the KiCad layouts, Gerbers, PTH drill and part list in the bench package.