

VISUALISATION · NOT A MANUFACTURED PRODUCT



DESIGN VISUALISATIONS · V2

Drone and Brain

Physical part of the AKIZU system: an aerodynamic airframe for Starling 2 Max and an onboard unit for VOXL 2 with a 5G modem.



DESIGN LANGUAGE

Designed as a working tool

AKIZU sells confidence in the image. The hardware must convey this at first glance: precise edges, matte surfaces, visible screws and seals, nothing more.

1. **Function shapes form.** Ribs dissipate heat, the wedge reduces drag, and facets strengthen the thin wall.
2. **No lighting effects.** No LED strips or neon. A status light only where the operator needs it.
3. **Service without compromise.** Torx screws, SIM access without disassembly, and a quickly replaceable battery.
4. **Logo as a maker's mark.** Small, one per part, always the original file from the brand manual.





VISUALISATION

02 · BRAIN

Onboard brain in aluminium

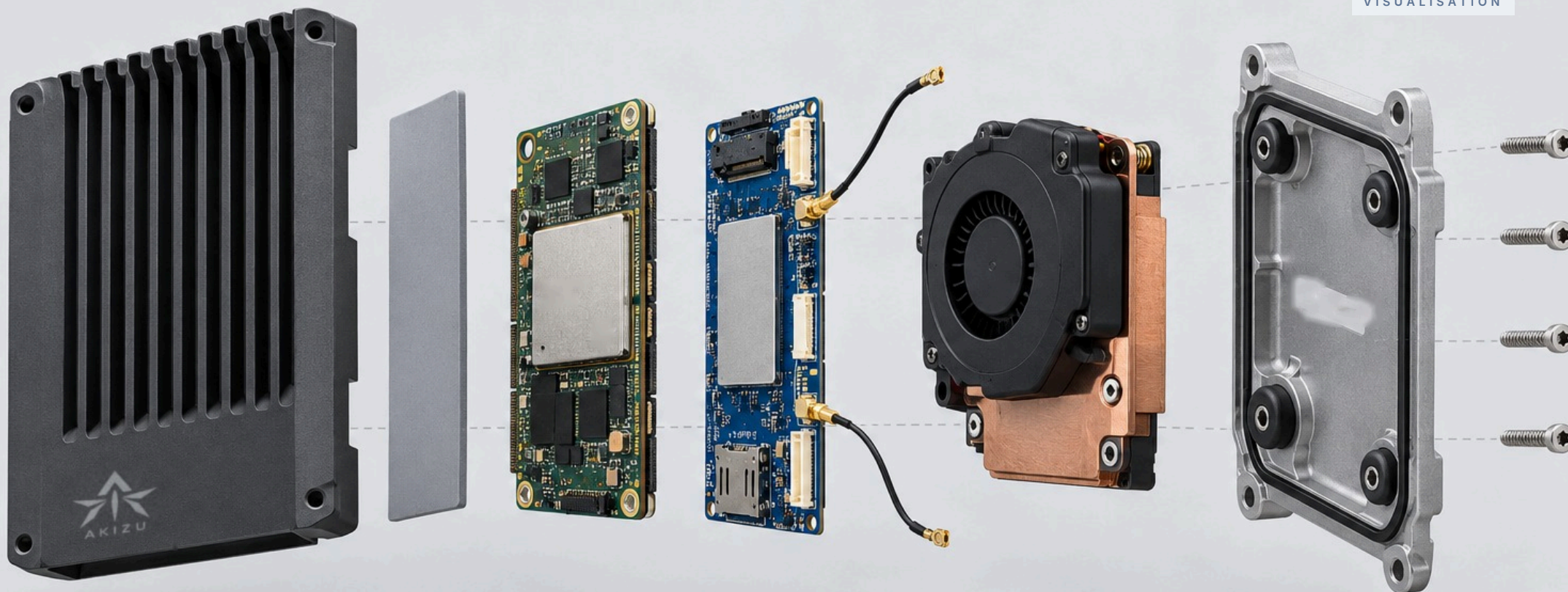
Milled enclosure for VOXL 2 and a 5G modem. The top tapers into a wedge, with ribs aligned with the direction of flight that also act as a heatsink.

Computer	ModalAI VOXL 2, 70 × 36 mm, 16 g
Modem	5G board M0090, 67.5 × 36 × 10 mm, nano-SIM
Enclosure	~118 × 50 × 30 mm (E)
Material	6061 aluminium, hard anodised, bead-blasted

Interfaces	circular connector, 2 antenna ports, USB-C with cap
Cooling	fins + 30 mm fan, rear exhaust
Mounting	4 M3 mounts with vibration dampers

E = design estimate. Boards: [ModalAI VOXL 2](#), [5G modem datasheet](#).

VISUALISATION



INSIDE

Seven layers, one axis

- 1 · Top cover with fins and logo
- 2 · Thermal pad between the chip and cover

- 3 · VOXL 2 with Qualcomm processor
- 4 · 5G modem with M.2 module, SIM and antenna cables

- 5 · Fan with copper heat spreader
- 6-7 · Base with gasket, dampers and screws

INTEGRATION

For other platforms

Starling 2 Max has VOXL 2 built in. Brain is for other platforms: four screws, power and data through a single connector, and two 5G antennas.

This also brings VERA to a drone the customer already owns. Compatibility, power supply and centre of gravity must be checked for each platform individually.





01 · DRONE

Starling 2 Max in the AKIZU fuselage

Original frame, motors and propellers. The new enclosure protects the electronics and batteries and gives the drone the look of a professional tool.



WHAT CHANGES

Fuselage on an existing frame

Base	ModalAI Starling 2 Max
Propeller span	512 mm tip to tip
Take-off weight	500–566 g depending on source; payloads up to 500 g shorten flight time
Batteries	2 × 2S 18650 in series (4S)
Fuselage	glass-fibre-reinforced PA12, faceted
Additional weight	target 60–80 g (E)
Nose	window for 2 × 4K and 2 tracking sensors
Top	GNSS dome, ventilation louvres

Frame data: [Starling 2 Max datasheet](#). E = design estimate.

TWO COLOURWAYS

Deep Navy and Light Grey



Deep Navy ~#0E2440



Light Grey ~#C5CBD1

DEEP NAVY



LIGHT GREY



CHOOSING BETWEEN THEM

Colour for the use case

Deep Navy. The main brand colour. Security services, night-time and urban use, and presentations.

Light Grey. Infrastructure inspections and long flights in sunshine. A light surface is likely to heat up less in the sun. Its cooling benefit for VOXL 2 will be verified by temperature testing. More visible to people on the ground.

Logo: white on Deep Navy, dark blue on Light Grey. Always use the original file.

LABELS

What is what

Main Brain and Drone components. The same labels appear in product sheets and on the website.

Visualisation. Small markings on the labels and motors are generation artefacts, not actual markings.





03 · SIM

A card in the same style

Data SIM cards for Brain in Deep Navy with the original logo printed in white. Triple-cut format, with a nano-SIM inserted into Brain.

Manage cards, limits and connection status in AKIZU Platform. Two networks at once are available only with the Brain Duo concept. Operators and prices are still being selected.

NEXT STEPS

From render to component

1. **CAD model** of the Brain enclosure based on VOXL 2 and M0090 drawings; verify mounting holes.
2. **Thermal test:** VOXL 2 at 240 frames/s with 5G transmission in an enclosed housing, with and without a fan.
3. **Radio test:** 5G and GNSS attenuation through the enclosure; antenna placement.
4. **Drone airframe:** PA12 3D printing, weighing, centre of gravity, camera and ToF fields of view.
5. **Flight test** with the enclosure and comparison of endurance with the original drone.

TRANSPARENCY

What these images are not

These are AI-generated visualisations based on actual dimensions and ModalAI photographs. They are not photographs of a manufactured product; enclosure dimensions are estimates, and the aerodynamic benefit at this drone's speed is small. The main benefits are protection for the electronics, servicing and appearance.

Starling 2 Max and VOXL 2 are ModalAI products. Licensing and commercial terms for modifications must be verified before sale.

