

Four roles, one evaluation discipline

Choose the hardware around the observation and the machine. Compute, camera-local processing, bus observation and low-level sensing need different space, power and evidence.

Card	PCB	Assembly	Power allocation
NODERIQ Core C100	100 × 80 mm	40 mm	45 W
NODERIQ Vision V80	80 × 50 mm	18 mm	10 W
NODERIQ Link L70	70 × 50 mm	16 mm	4 W
NODERIQ Sense S50	50 × 35 mm	12 mm	1 W

NODERIQ Core C100 / Mission compute

A compact compute-carrier profile for mobile robots and observation platforms that need local perception, storage and a clear handoff to a separate machine controller.

NODERIQ Vision V80 / Camera-local intelligence

A low-profile camera-processing board architecture for inspection heads, fixed observation nodes and lightweight robotic perception modules.

NODERIQ Link L70 / Robot and sensor I/O

A compact I/O bridge profile for observing CAN and serial devices, aligning service records and connecting existing controllers to mission-level software.

NODERIQ Sense S50 / Precision and inertial sensing

A small acquisition profile combining four simultaneous analog channels with inertial observation for compact instruments and distributed robotic sensing.

These are EV1 engineering allocations, not measured operating ratings or manufactured-board evidence. AERA and MIRA remain separate observation-device programmes; these cards do not establish qualified airframe compatibility.

One configuration. One traceable record.

01

Freeze the configuration

Identify the card revision, sample, processor or module, firmware, harness and workload. Confirm the electrical release and approved pin map before energising hardware. Record the operator, instrument identifiers and calibration dates.

02

Check the mechanical and power path

Measure the PCB and mounting pattern against the dimensional source. Inspect fastener clearance, connector access and strain relief. Use one approved supply path, verify rail extrema and check for unintended USB or peripheral backfeed.

03

Exercise the named fixture

Run the card-specific interface fixture and preserve the raw capture. Keep source configuration, units and errors alongside each result. Neural-model throughput, analog accuracy and bus receipt describe different measurements.

04

Review the evidence together

Attach the raw-record identifiers and SHA-256 hashes, then check completeness and numeric criteria. An engineer reviews the physical configuration and signs the result separately. The checklist does not authorise machine operation or create certification.

Distinguish footprint, assembly and access

PCB outline is a mechanical shape; assembled height includes components on both sides. Installation reserve adds initial access and harness room. Confirm the actual fastener length, connector insertion path and cable bend before making an enclosure decision.

Card	Installation reserve	Bench input	Bench supply
NQ-C100	120 × 110 × 60 mm	9–24 V	12 V / 5 A
NQ-V80	100 × 80 × 35 mm	4.75–5.25 V	5 V / 3 A
NQ-L70	90 × 80 × 30 mm	4.75–5.25 V	5 V / 1.5 A
NQ-S50	70 × 60 × 25 mm	4.75–5.25 V	5 V / 0.5 A

Thermal screening

The named workload runs for at least 30 minutes at 20–25 °C bench ambient. Record the complete assembly and the hottest measured surface, plus unexpected resets and thermal-throttle flags.

Card	Surface screening ceiling	Steady power allocation
NQ-C100	70 °C	45 W
NQ-V80	65 °C	10 W
NQ-L70	60 °C	4 W
NQ-S50	55 °C	1 W

Screening ceilings are engineering review criteria, not touch-safety limits, weather ratings or qualified operating temperatures. A configured compute mode and a thermal design need their own evidence.

Review a record without inventing a result

Download the matching blank measurement template. Keep schema version, EV1 revision, card ID, sample ID, operator, firmware/configuration, measurement time and instrument metadata together. Each performed check includes a raw-record identifier, SHA-256 hash and the required measurements.

```
{
  "schemaVersion": 1,
  "revision": "EV1",
  "card": "core-cl00",
  "kind": "physical-bench",
  "sampleId": "",
  "evidence": {
    "mechanical-fit": {
      "performed": false,
      "record": "",
      "recordSha256": "",
      "measurements": { "widthMm": null }
    }
  }
}
```

This is a deliberately incomplete format excerpt, not a passing record. The supplied full template lists every required field.

Run the same logic locally

```
node validate-evidence.mjs core-cl00-specification.json measurements.json
```

Possible statuses are incomplete, outside-criteria, example-only and ready-for-review. A ready-for-review result still requires an engineer to inspect the raw evidence and physical configuration. The checker cannot prove that submitted measurements are authentic and never authorises operation.

Current hardware and future announcements

Review date: 2026-10-23. The chosen EV1 architectures separate available component documentation from an approved custom board. Vendor peaks, temperature grades and certifications are not transferred to NODERIQ.

Compute

Keep the initial C100 mechanical basis on Orin NX at up to 25 W configured module allocation; define the complete board power and cooling separately.

A documented module envelope permits a credible compact carrier. Super and future Thor/Nano2 configurations need another electrical/thermal review.

Vision

Use a distinct STM32N6-based V80 architecture for camera-local preprocessing and bounded model evaluation.

An MCU camera/NPU pipeline serves a different power and latency role from a Linux mission computer.

I/O

Separate CAN/serial observation and timing on L70.

Physical bus transceivers and a watchdog must remain distinct from application-level mission authority.

Sensing

Keep low-level simultaneous analog acquisition and inertial sensing on S50, away from the compute cooler.

Thermal, mechanical and analog noise need their own mounting and calibration checks.

The August 2026 Nano 2 announcement states expected H1 2027 availability. The July 2026 T3000/T2000 announcement states Q1 2027 availability. Neither establishes mechanical, power, software or camera compatibility with C100 EV1.

Inspect the original manufacturer record

[NVIDIA / Jetson Orin production modules](#)

[NVIDIA / Orin NX module datasheet DS-10712-001 v1.7](#)

[NVIDIA / Jetson Linux power and performance](#)

[NVIDIA / Jetson Orin Nano 2 announcement, 25 August 2026](#)

[NVIDIA / Jetson T3000/T2000 announcement, 15 July 2026](#)

[Qualcomm / Dragonwing IQ-9075 industrial platform](#)

[Raspberry Pi / AI HAT+ 2](#)

[NXP / i.MX 95 processor family](#)

[STMicroelectronics / STM32N657X0](#)

[STMicroelectronics / STM32H753VI](#)

[STMicroelectronics / STM32U575CG](#)

[Texas Instruments / ADS131M04 simultaneous ADC](#)

[Bosch Sensortec / BMI088 inertial sensor](#)

[JST / GH locking wire-to-board family](#)

Next integration decision

Bring the machine envelope, power source, sensor types, interface list, environmental conditions, retained controller and named workload to the scope review. Electrical release, prototype measurement, EMC, calibration and any physical-operation acceptance remain explicit work items.

neuraparse.com/products/noderiq/cards/evaluation/

Contact: hello@neuraparse.com