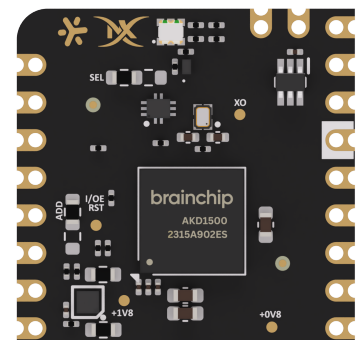


# BrainBoard 1500 Datasheet

[User Manual](#)

SKU: BB15-0001

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## Description

BrainBoard1500 is a compact AKD1500 neuromorphic AI accelerator module in the Arduino Nicla form factor. It provides a practical SPI/QSPI evaluation path for sensor-based SNN inference, with onboard model flash, host-level shifting, and integrated power monitoring for real workload profiling.

## Target Areas:

AKD1500 evaluation and bring-up, embedded AI and edge-AI prototyping, MCU-hosted SPI/QSPI accelerator testing, sensor-based SNN evaluation, academic neuromorphic computing, low-volume product integration, power profiling of inference workloads

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## 1 Application Examples

BrainBoard1500 is designed as a compact AKD1500 evaluation and prototyping module for sensor-driven edge-AI systems. It can be paired with MCU, Arduino Nicla, Seeed XIAO, OpenMV, Raspberry Pi-class, FPGA, Alif, robotics, and custom embedded host platforms where sensor data needs to be processed locally over SPI/QSPI. Its value is not only SNN execution, but also realistic embedded workflow evaluation: model loading, host communication, power profiling, sensor inference, and early product integration.

- **Vision inference:** Person detection, visual wake word, hand gesture recognition, simple object classification, presence detection, and camera-triggered sensing using Nicla Vision, OpenMV, XIAO camera modules, or other camera-enabled hosts.
- **Audio inference:** Keyword spotting, alarm or siren detection, acoustic event classification, machine-sound monitoring, and always-listening low-power audio experiments using microphone-equipped MCU or sensor boards.
- **Motion and IMU sensing:** Fall detection, human activity recognition, gesture recognition, motion-state classification, vibration pattern detection, and wearable or robotic movement analysis using IMU-equipped hosts.
- **Environmental sensing:** Gas or VOC pattern classification, air-quality anomaly monitoring, smell classification, pressure-movement detection, and environmental sensing workflows using Nicla Sense ME or custom environmental nodes.
- **Radar and proximity workflows:** Presence detection, occupancy sensing, near or far classification, approach or leave detection, and range-motion classification where supported by the external radar, ToF, or proximity sensor system.
- **Robotics and autonomous systems:** Compact sensor-side inference for small robots, drones, mobile platforms, industrial inspection devices, and autonomy R&D systems that need local decision-making near the sensor.
- **Industrial edge-AI pilots:** Predictive maintenance, machine condition monitoring, safety alerts, smart-building sensing, factory automation, and low-power sensor-node evaluation.
- **Academic and laboratory research:** Neuromorphic computing education, SNN model evaluation, embedded AI coursework, TinyML comparison, sensor-fusion experiments, and low-cost AKD1500 lab demonstrations.
- **Custom hardware integration:** Early AKD1500 bring-up, SPI/QSPI accelerator testing, power-consumption profiling, model deployment validation, and preparation for future custom carrier boards or product-specific modules.

## 2 Features

### 2.1 General Specifications Overview

BrainBoard1500 is a compact AKD1500 neuromorphic AI accelerator module in the Arduino Nicla form factor. It provides a practical SPI/QSPI evaluation path for sensor-based SNN inference, combining onboard model flash, host-side level shifting, integrated power monitoring, and bring-up control support in a single embeddable module.

| Feature                          | Description                                                                                                                                                                         |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Accelerator</b>               | BrainChip AKD1500 neuromorphic AI accelerator.                                                                                                                                      |
| <b>Model Storage</b>             | Onboard QSPI flash options for validated model storage and AKD1500 external-flash workflows. Current populated parts include AT25SL321-MBUE-T 4 MB and W25Q64JWUIQ_TR 8 MB devices. |
| <b>I/O Translation</b>           | Level shifters allow 3.3 V host devices to control the 1.8 V AKD1500 domain.                                                                                                        |
| <b>Current Monitoring</b>        | INA2227AIYBJR power monitor for observing AKD1500 1.8 V and 0.8 V rail consumption during bring-up and inference profiling.                                                         |
| <b>Bring-up Control</b>          | Reset sequencing, bootstrap selection, and early AKD1500 control are supported by the current Arduino software flow.                                                                |
| <b>Validated Host</b>            | Arduino Nicla Vision<br>Arduino MKR1000<br>Arduino Due                                                                                                                              |
| <b>Compatibility Positioning</b> | Arduino Nicla form-factor compatible module intended for host-side evaluation, prototyping, and low-volume embedded integration.                                                    |
| <b>Mechanical Format</b>         | Arduino Nicla form factor.                                                                                                                                                          |
| <b>Revision Coverage</b>         | Current document content reflects the present BB15 hardware release and validated software flow.                                                                                    |

### 2.2 Accessories

- A set of 2.54 mm swiss machined solderable socket connectors
- A set of 2.54 mm swiss machined solderable pinheader connectors
- A set of 2.54 mm doupont solderable socket connectors
- A set of 2.54 mm regular pinheader connectors

### 2.3 Related Products

- Arduino Nicla boards (third party vendor).
- BB15 Nicla convinience board
- OpenMV A3 adapter board
- Seeed studio Seeeduino adapter board

## 3 Functional Overview

### 3.1 BB15 rev0 Pinout

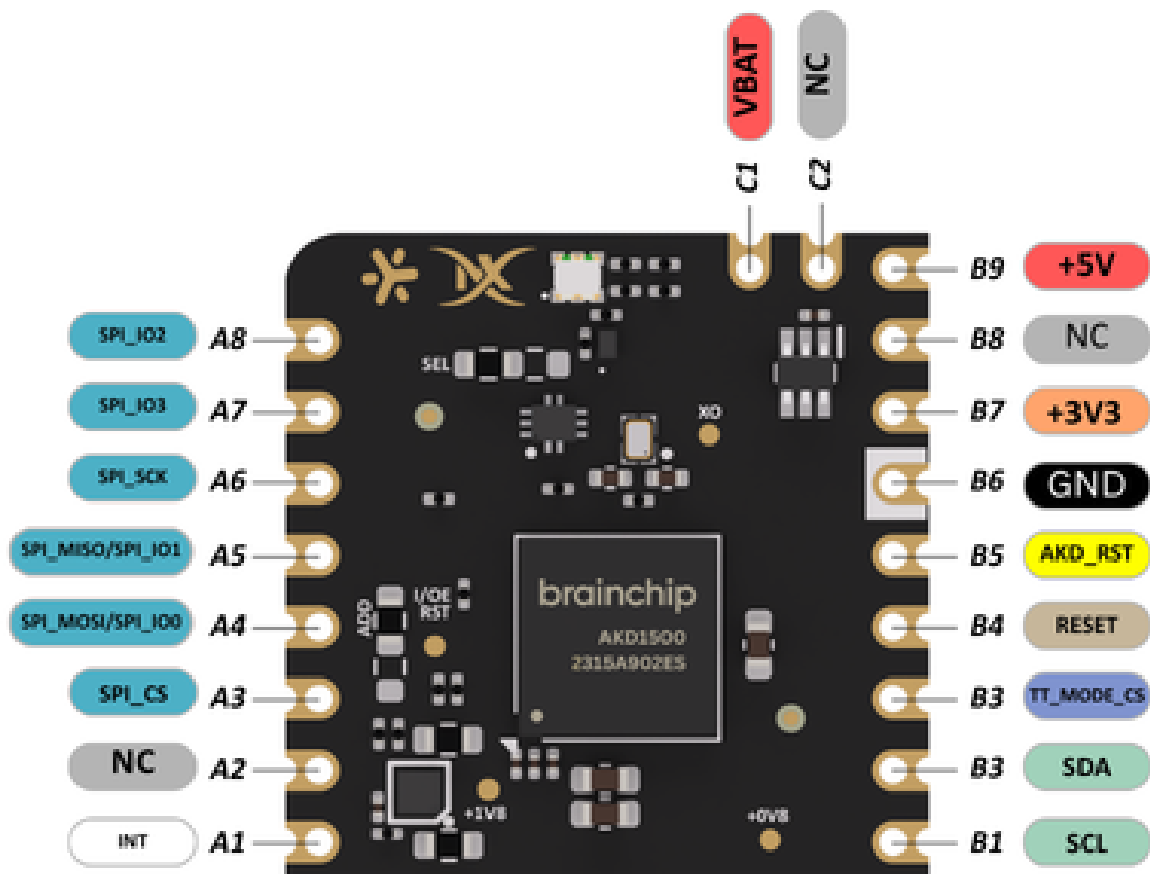


Figure 3-1. BB15 revision 0 pinout.

### 3.1.1 BB15 rev0 Pin functional description

| Physical Pin | Functional Name | Function                                                                             |
|--------------|-----------------|--------------------------------------------------------------------------------------|
| A1           | INT             | Interrupt pin signaling an interrupt from the AKD1500 accelerator                    |
| A2           | NC              | An unused pin                                                                        |
| A3           | SPI_CS_N        | SPI bus active low chip select pin                                                   |
| A4           | SPI_MOSI<br>IO0 | Manager Out Subordinate In for Single SPI operation<br>QSPI bit 0 for QSPI operation |
| A5           | SPI_MISO<br>IO1 | Manager In Subordinate Out for Single SPI operation<br>QSPI bit 1 for QSPI operation |
| A6           | SPI_SCK         | SPI clock                                                                            |
| A7           | SPI_IO3         | QSPI bit 3 for QSPI operation                                                        |
| A8           | SPI_IO2         | QSPI bit 2 for QSPI operation                                                        |
| B1           | SDA             | I2C Serial Data pin                                                                  |
| B2           | SCL             | I2C Serial Clock pin                                                                 |
| B3           | TT_MODE_CS_N    | AKD1500 spi talk trough mode active low chip select pin                              |
| B4           | RESET           | Active high power supply on pin                                                      |
| B5           | AKD_RESET       | AKD1500 reset pin                                                                    |
| B6           | GND             | Device ground pin                                                                    |
| B7           | +3V3            | 3.3 volt power input pin                                                             |
| B8           | NC              | An unused pin                                                                        |
| B9           | +5V             | main power supply input pin                                                          |
| C1           | VBAT            | Battery power connector pin                                                          |
| C2           | NC              | An unused pin                                                                        |

## 3.2 BB15 Test pads

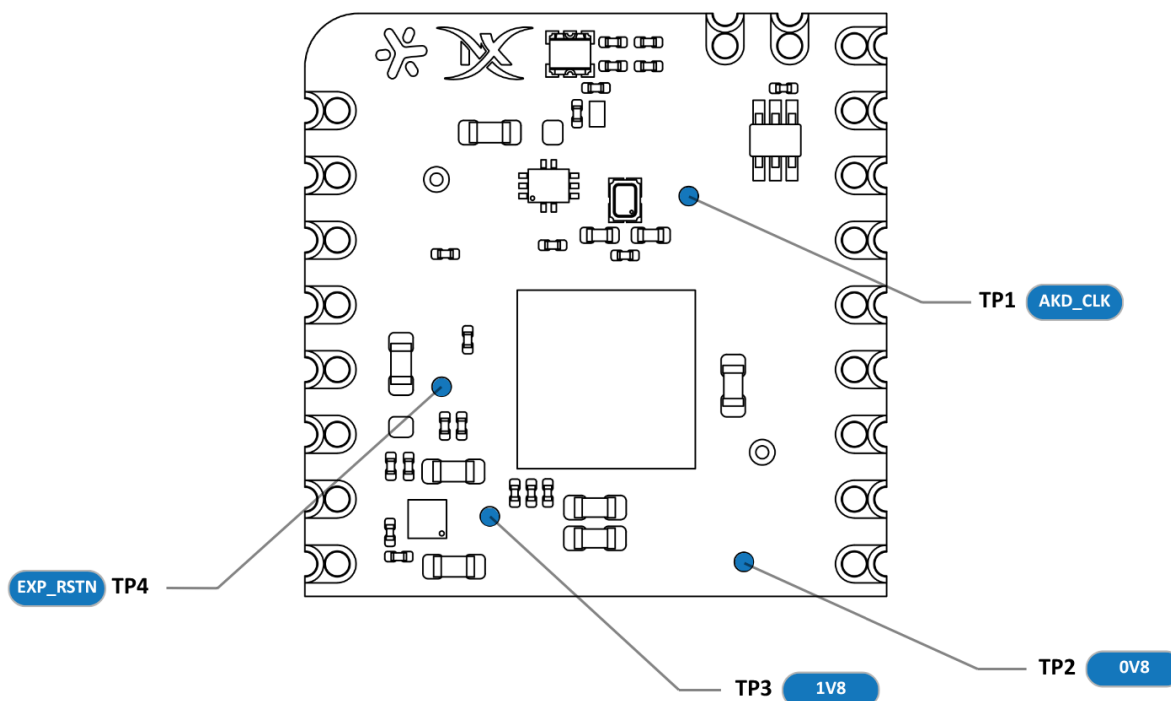


Figure 3-2. BB15 test pad layout.

### 3.2.1 BB15 Test pad functional description

| Test Pad | Functional Name | Function |
|----------|-----------------|----------|
| TP1      | AKD_CLK         | TBD      |
| TP2      | 0V8             | TBD      |
| TP3      | 1V8             | TBD      |
| TP4      | EXP_RSTN        | TBD      |

### 3.2.2 Additonal notes

The board has pass trough test pads on both sides.

### 3.3 BB15 user strap resistor selectors

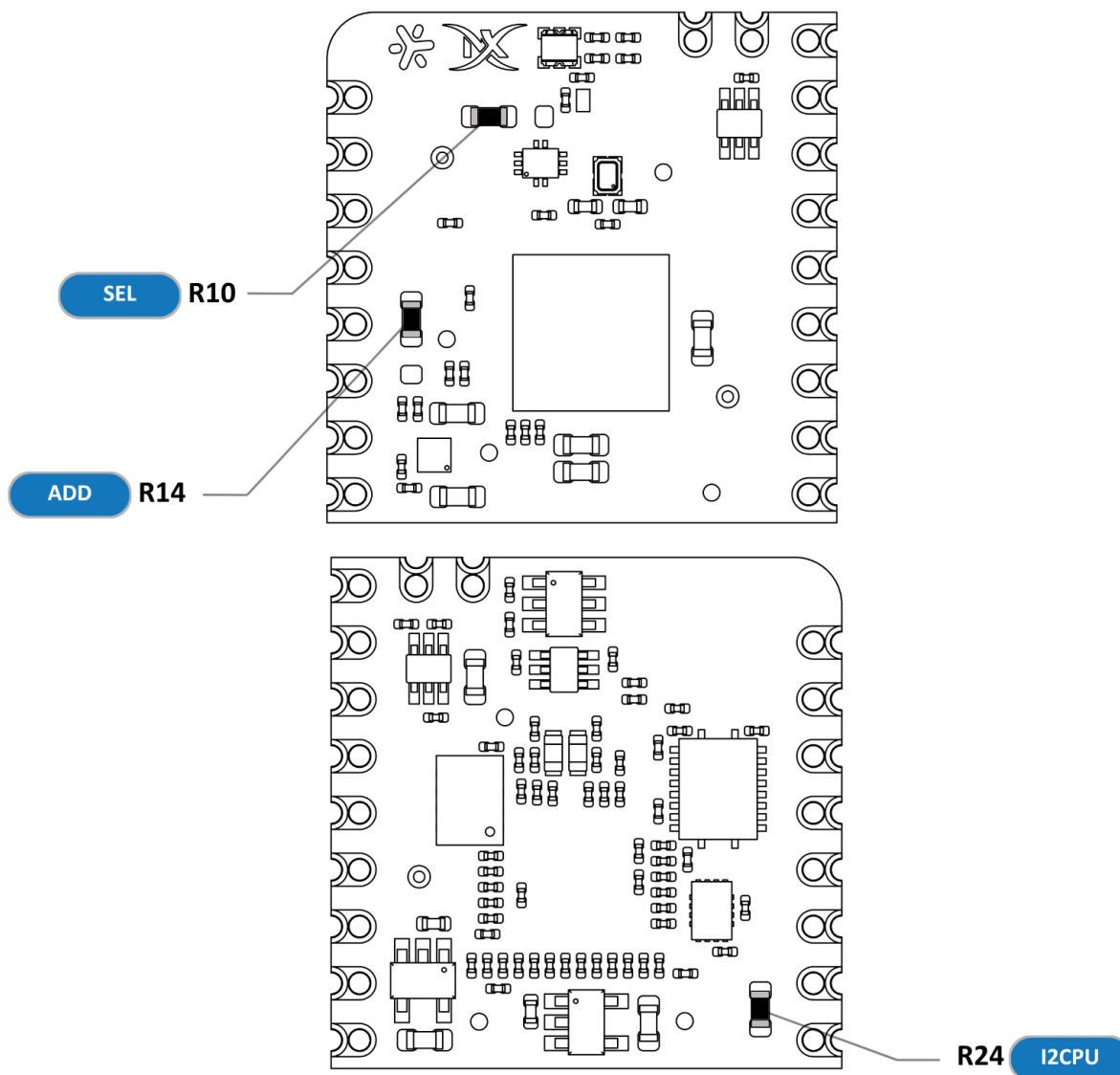


Figure 3-3. BB15 strap resistor selector layout.

#### 3.3.1 Strap resistor selector Functional description

| Selector | Functional Name | Function |
|----------|-----------------|----------|
| R10      | SEL             | TBD      |
| R14      | ADD             | TBD      |
| R24      | I2CPU           | TBD      |

#### 3.3.2 User strap resistor resoldering

##### Rework Warning

Manual replacement of strap resistors is an advanced rework operation and voids product warranty. Only attempt this procedure if you have suitable tools and experience with fine-pitch PCB rework.

The user strap resistors are 0603 components. When changing these resistors by hand, approach the operation as a localized rework step rather than a general touch-up.

- The current assembly uses RoHS high-temperature solder paste, so adding a small amount of bismuth-bearing solder wire to the existing joints will help lower the effective melting point and make part removal easier.
- Use generous solder flux before heating or lifting the resistor. Flux is required both to improve heat transfer and to reduce the chance of pad damage during removal and replacement.
- Mask the surrounding area with Kapton tape before rework so nearby passive parts, connectors, and plastic features are protected from hot air, solder splash, and accidental tool contact.
- Remove and replace only one strap resistor at a time, then inspect the pads for bridges, lifted copper, and incomplete wetting before powering the board again.

### 3.4 Block Diagram

At a high level the module integrates the AKD1500 accelerator, onboard flash for external model storage, level shifting between common host logic and the AKD1500 domain, a GPIO expander used during bring-up, rail generation, and integrated power monitoring for real workload profiling through the Nicla-form-factor host interface.

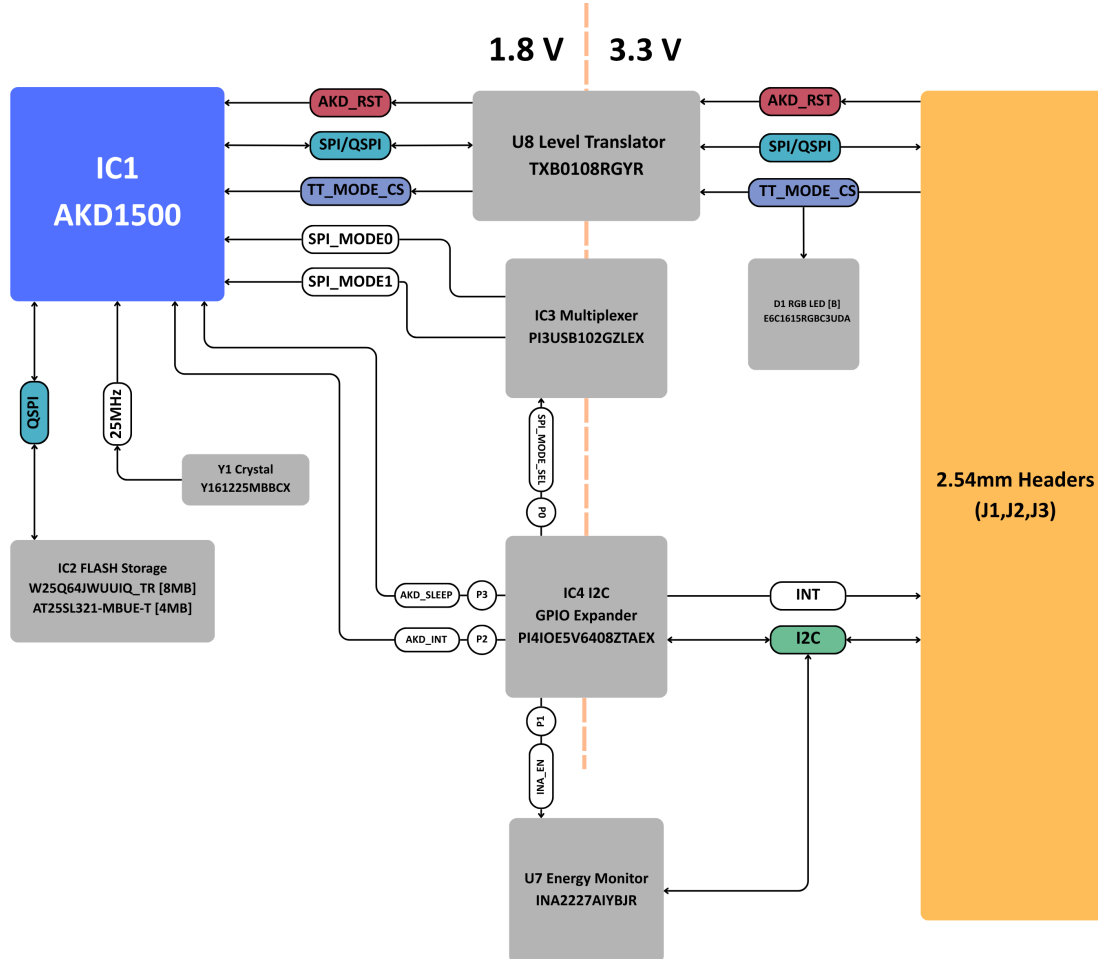


Figure 3-4. BB15 functional block diagram.

### 3.5 Power Supply

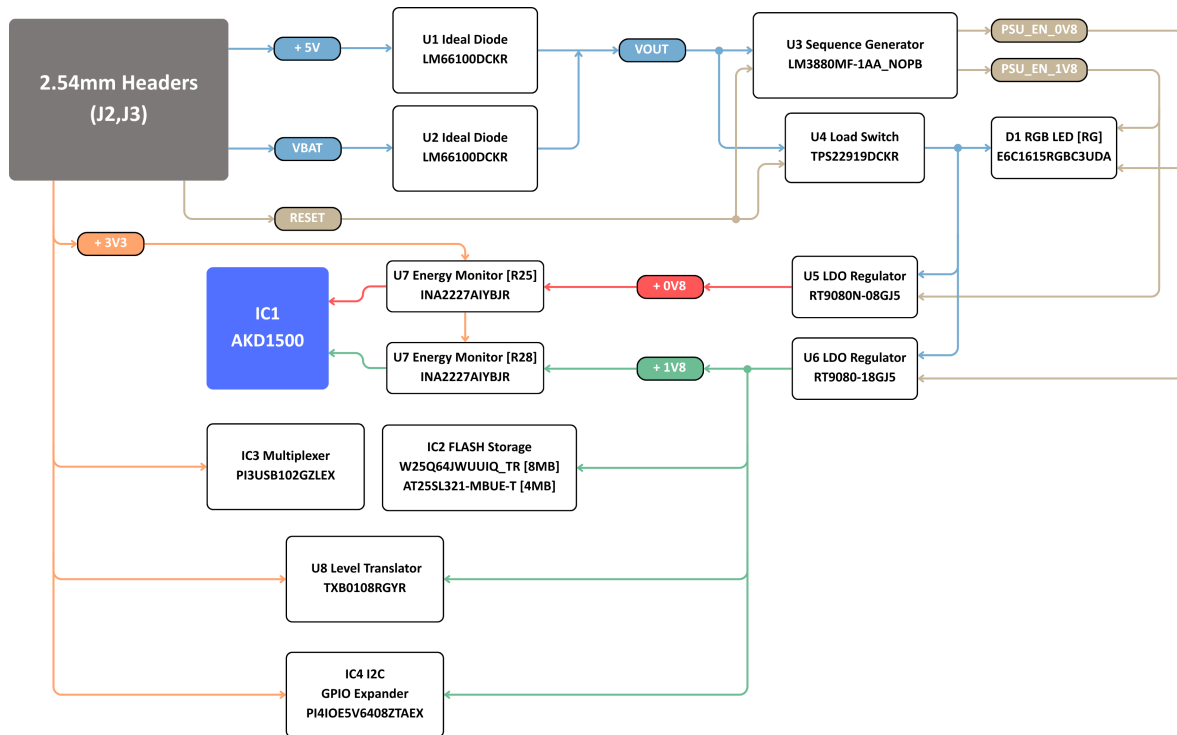


Figure 3-5. BB15 power supply diagram.

## 4 Ratings

### 4.1 Recommended Operating Conditions

The electrical and environmental limits below are not ready for publication yet. The table is retained as a drafting placeholder so the missing fields are visible.

| Parameter               | Symbol    | Min | Typ | Max | Unit |
|-------------------------|-----------|-----|-----|-----|------|
| +5V Pin Input Voltage   | $V_{5V}$  | 3.3 | 5.0 | 5.5 | V    |
| +3.3V Pin Input Voltage | $V_{3V3}$ | 3.1 | 3.3 | 3.6 | V    |
| Digital pin voltage     | $V_D$     | 3.1 | 3.3 | 3.5 | V    |
| Operating Temperature   | $T_{OP}$  | -40 | 20  | 85  | °C   |

#### Power Tip

The current software flow assumes the host can provide the expected Nicla-side power and logic environment, but exact publishable rail limits still need to be confirmed from hardware data.

## 5 Device Operation

### 5.1 Getting Started

In the validated reference flow, the host MCU first places the BrainBoard15 control signals into a known state before attempting any AKD1500 transaction. On the Nicla Vision reference design, the RESET pin is driven high, the shared bridge/UART pins are released so they can be reused for AKD1500 and flash access, and the I2C control bus is started. The firmware then probes the BB15 GPIO expander at address 0x43 and programs its default output state. This expander is used to control the AKD1500 boot strap.

To boot AKD1500 in external-flash mode, the firmware asserts AKD\_RST low, drives expander pin P0 low to select the external-flash boot path, then releases reset and waits for the device to settle. In the current validated implementation this reset pulse is held for 5 ms and the post-release settle time is 50 ms. After this board-level sequence completes, the AKD1500 library performs the link check by initializing the low-level board driver, waiting an additional software settle interval, and reading the AKD1500 IP version register. A successful link is declared only if the returned IP version matches the expected device identifier 0xBCA10309. Once this check passes, the hardware device object is created and higher-level operations such as flash staging, model loading, and inference can begin.

1. Drive the proceed-enable control high and release any shared bridge pins needed for AKD1500 and flash access.
2. Start the I2C control bus, probe the BB15 GPIO expander at address 0x43, and program its default output state.
3. Assert AKD\_RST low and drive expander pin P0 low to select the external-flash boot path.
4. Hold reset low for 5 ms, then release reset and wait 50 ms for the AKD1500 device to settle.
5. Initialize the low-level board driver, perform the link check, and confirm that the AKD1500 IP version matches 0xBCA10309.
6. Continue with higher-level operations such as flash staging, model loading, and inference after the link check succeeds.

### 5.2 Libraries and Firmware

Currently, BB15 is accompanied by an Arduino library made to support users in running power efficient inference on arduino boards.

#### 5.2.1 Embedded inference

To get started with running embedded applications on the BB15 device visit the official Arduino library repo

For more advanced interactions with the AKD1500 chip user should consult the official Brainchip AKD1500 datasheet

#### 5.2.2 Akida model training

To get started with training quantised SNN models using CNN2SNN and Brainchip MetaTF visit BrainChip developer hub

## 6 Mechanical Information

### 6.1 Board Dimensions

BB15 is currently described as using the Arduino Nicla form factor. The current discovery notes list 1.0 mm board thickness and 1.3 mm maximum component height on both top and bottom sides, but the final drawing is still missing.

| Mechanical Item        | Current Status                                           |
|------------------------|----------------------------------------------------------|
| Form Factor            | Arduino Nicla form factor (partial)                      |
| Board Thickness        | 1.0 mm (partial)                                         |
| Max Top-Side Height    | 1.3 mm (partial)                                         |
| Max Bottom-Side Height | 1.3 mm (partial)                                         |
| Orientation Note       | LED should be on the top when viewing top-down (partial) |

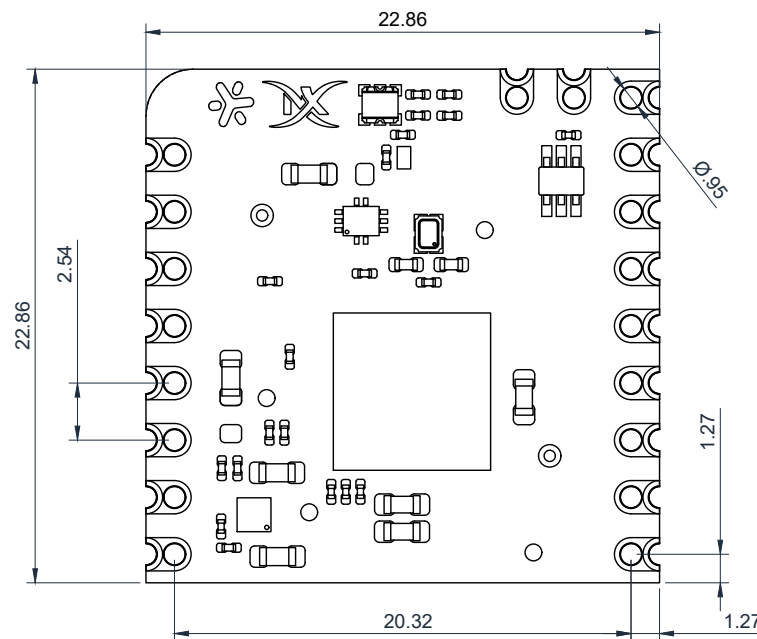


Figure 6-1. Top-view mechanical dimensions.

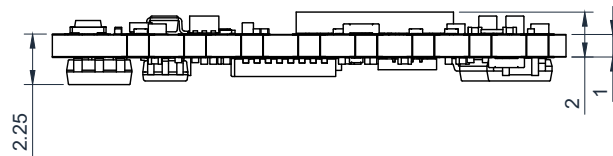


Figure 6-2. Side-view mechanical dimensions.

## 7 Legal

### 1. Product Scope and Variant Applicability

This document applies to the NeuroSight IMX6XX EVS product family supplied by Neuromorphyx, including configurations based on IMX636, IMX637, IMX646, and IMX647 event-based vision sensors.

The term NeuroSight IMX6XX EVS refers to the common board-level product, electrical interface, evaluation workflow, software support model, handling requirements, and integration process. Sensor-specific parameters such as resolution, latency, optical format, firmware configuration, availability, and price may vary by selected sensor variant.

Unless a specific sensor variant is expressly identified, all legal, handling, safety, regulatory, warranty, software, export-control, and integration terms in this datasheet apply equally to all NeuroSight IMX6XX EVS variants.

### 2. Document Status

This datasheet is provided for technical evaluation, customer integration planning, and B2B engineering review only. It does not constitute a binding production specification, certification statement, safety approval, regulatory approval, warranty extension, lifecycle commitment, or obligation to supply unless expressly incorporated into a signed quotation, purchase agreement, statement of work, or separate written agreement issued by Neuromorphyx.

Specifications, drawings, images, dimensions, electrical values, optical data, software descriptions, mechanical information, and availability information may change without notice. The customer is responsible for confirming the applicable product revision, sensor variant, firmware revision, software package, interface configuration, and support scope before integration or purchase.

### 3. Engineering Evaluation Product Notice

NeuroSight IMX6XX EVS is supplied as a B2B engineering evaluation product for research, development, prototyping, feasibility testing, integration testing, algorithm development, and system bring-up.

NeuroSight IMX6XX EVS is not supplied as a finished consumer product. It is not certified as a standalone end-user device unless expressly stated in a product-specific declaration issued by Neuromorphyx.

NeuroSight IMX6XX EVS may require host hardware, cables, lenses, enclosures, power supplies, software drivers, firmware configuration, thermal management, regulatory assessment, and application-specific validation before use in any final system.

### 4. Intended Use

NeuroSight IMX6XX EVS is intended for controlled laboratory, engineering, research, development, and prototyping environments.

Permitted uses include event-based vision evaluation, sensor characterization, embedded vision research, edge AI development, robotics prototyping, industrial sensing evaluation, FPGA and processor integration, host-interface testing, software driver development, and early product feasibility assessment.

Any use outside the intended evaluation scope requires the

customer to perform independent system-level validation, compliance assessment, risk assessment, and legal review.

### 5. Restricted Applications

NeuroSight IMX6XX EVS is not intended, qualified, certified, or approved for direct use as a safety-critical component, automotive safety component, aviation component, railway safety component, medical device, life-support system, nuclear system, emergency-response system, access-control system, biometric identification system, law-enforcement deployment system, autonomous lethal system, weapons system, targeting system, or any system where failure, misuse, incorrect sensing, incorrect processing, incorrect integration, or incorrect interpretation may cause death, personal injury, property damage, unlawful surveillance, unlawful discrimination, or material regulatory exposure.

The customer shall not use NeuroSight IMX6XX EVS in any restricted application unless Neuromorphyx has expressly approved the specific use in writing and the customer has completed all required application-specific safety, legal, compliance, export-control, and regulatory assessments.

### 6. Non-Arms and Prohibited End-Use Position

Unless expressly approved in writing by Neuromorphyx and permitted by all applicable supplier, export-control, sanctions, and end-use restrictions, NeuroSight IMX6XX EVS shall not be used, integrated, resold, transferred, modified, or supplied for weapons systems, targeting systems, autonomous lethal systems, explosive systems, missile systems, military combat systems, military surveillance systems, restricted defense end use, or any application prohibited by applicable law or by Neuromorphyx supplier obligations.

The customer is responsible for ensuring that its use, resale, export, re-export, transfer, integration, and downstream deployment of NeuroSight IMX6XX EVS complies with all applicable end-use restrictions and contractual obligations.

### 7. Regulatory Status

Unless expressly stated in a product-specific Declaration of Conformity issued by Neuromorphyx, NeuroSight IMX6XX EVS is not supplied as a CE-marked finished product, FCC-authorized standalone product, or certified end-user device.

The customer is responsible for determining and obtaining any regulatory approvals, conformity assessments, certifications, tests, filings, marks, declarations, import approvals, labeling, documentation, user instructions, warnings, and records required for the customer's final product, host system, enclosure, power supply, cable configuration, software stack, deployment environment, and target market.

Regulatory behavior may change materially depending on host board, cable length, flex cable routing, enclosure, shielding, lens configuration, power supply, grounding, firmware settings, sensor bias settings, operating mode, clocking, thermal behavior, and final system architecture.

### 8. CE, EMC, FCC, RoHS, REACH, and Product Compliance

Any reference to CE, EMC, FCC, RoHS, REACH, UKCA, safety, environmental, or other compliance status applies only where expressly stated in Neuromorphyx-controlled documentation for the specific product revision and sales configuration.

A module-level assessment does not automatically certify the customer's final product. The customer remains responsible for final-system compliance, including electromagnetic compatibility, electrical safety, thermal safety, radio-frequency behavior, enclosure safety, labeling, documentation, environmental requirements, import requirements, market-specific obligations, and any required declarations of conformity.

Where RoHS, REACH, or material compliance information is provided, such information is based on supplier declarations, bill-of-material review, manufacturing records, or other available documentation at the time of issue. The customer is responsible for confirming whether the provided compliance information is sufficient for its own final product, market, and regulatory obligations.

## 9. Integration Responsibility

The customer is solely responsible for the design, validation, testing, certification, approval, safety, cybersecurity, privacy, reliability, manufacturability, and lawful deployment of any system that integrates NeuroSight IMX6XX EVS.

Use of NeuroSight IMX6XX EVS in a customer product does not transfer any regulatory approval, conformity assessment, certification, safety approval, quality approval, supplier approval, or production qualification from Neuromorphix to the customer's final product.

The customer shall validate the final system under all intended operating conditions, including electrical, thermal, mechanical, optical, environmental, software, firmware, cybersecurity, data-protection, and user-safety conditions.

## 10. Final-System Validation

Performance values in this datasheet are provided for engineering evaluation and may depend on sensor variant, firmware version, host platform, interface speed, cable length, lens, illumination, motion profile, scene contrast, temperature, power quality, software configuration, event-processing pipeline, and measurement method.

The customer shall not rely on typical values, preliminary values, reference results, laboratory results, demonstration results, or example configurations as guaranteed performance in the customer's final system.

The customer must independently validate latency, power consumption, bandwidth, event throughput, noise behavior, dynamic range, thermal behavior, mechanical robustness, optical alignment, software stability, EMC behavior, and long-term reliability in the target application.

## 11. Electrical, Thermal, Mechanical, and Optical Handling

NeuroSight IMX6XX EVS shall be handled only in an ESD-controlled environment. The customer shall use appropriate grounding, packaging, tools, handling procedures, and inspection methods.

The customer shall not exceed specified voltage, current, temperature, humidity, mechanical, optical, cable, connector, or interface limits. Incorrect power sequencing, hot-plugging, reversed connectors, excessive cable length, mechanical stress, electrostatic discharge, incorrect lens installation, contamination, or improper handling may permanently damage the product.

The customer is responsible for validating thermal behavior in the final enclosure. Host-board heating, enclosure design,

ambient temperature, airflow, power supply behavior, lens configuration, and continuous operating mode may materially affect performance and reliability.

The customer is responsible for validating optical performance in the final configuration. Lens choice, M12 mount configuration, focus, aperture, field of view, illumination, reflections, contamination, vibration, enclosure window, and mechanical alignment may materially affect event output and downstream processing.

## 12. Software, Firmware, Drivers, and Reference Code

Any software, firmware, drivers, scripts, SDK examples, reference code, configuration files, documentation, or integration examples supplied with NeuroSight IMX6XX EVS are provided for evaluation and integration support.

Unless expressly agreed in writing, such materials are not supplied as certified production software, safety software, cybersecurity-certified software, medical software, automotive software, aviation software, or software qualified for any regulated application.

The customer is responsible for software validation, firmware validation, cybersecurity review, dependency review, license review, update management, version control, vulnerability management, host-platform compatibility, and safe operation in the final system.

Open-source components, if any, are provided under their respective licenses. The customer is responsible for reviewing and complying with all applicable open-source license obligations.

## 13. Support Scope

Unless expressly agreed in writing, support provided by Neuromorphix is limited to reasonable engineering assistance for product evaluation, basic bring-up, interface clarification, and module-level troubleshooting.

Support does not include customer product development, certification work, application engineering for production deployment, full algorithm development, model training, safety validation, regulatory filings, long-term maintenance, field deployment support, or debugging of customer-specific systems unless covered by a separate written agreement.

## 14. Intellectual Property

All intellectual property, know-how, design files, schematics, firmware, software, drivers, mechanical designs, documentation, test methods, calibration methods, manufacturing processes, inspection methods, supplier information, and technical materials supplied or disclosed by Neuromorphix remain the property of Neuromorphix or its licensors.

No ownership right, license, sublicense, manufacturing right, distribution right, resale right, source-code right, design-file right, trademark right, patent right, or other intellectual property right is granted except the limited right to use the purchased product and related documentation for the agreed evaluation or integration purpose.

## 15. No Reverse Engineering

The customer shall not reverse engineer, decompile, disassemble, copy, clone, reproduce, benchmark for competitive product development, extract design information from, photograph for replication, scan, probe, chemically analyze, publish, modify, or create derivative works from NeuroSight IMX6XX

EVS, related software, firmware, documentation, mechanical files, test data, or support materials except where expressly permitted in writing by Neuromorphyx.

The customer shall not remove, obscure, alter, or bypass product markings, serial numbers, watermarks, confidentiality markings, access controls, software restrictions, firmware restrictions, or other technical or contractual protection measures.

#### 16. Third-Party Components, Names, and Trademarks

NeuroSight IMX6XX EVS may incorporate third-party components, sensors, software, connectors, lenses, materials, or technologies.

Third-party names, product references, sensor references, trademarks, and logos are the property of their respective owners. Reference to a third-party component does not imply endorsement, certification, partnership, approval, warranty, or support by such third party unless expressly stated in writing by the relevant third party.

The customer shall comply with all applicable third-party terms, supplier restrictions, end-use restrictions, export-control obligations, software licenses, and documentation requirements associated with third-party components or materials.

#### 17. Confidentiality

If this datasheet or related material is marked Confidential, Partner Controlled, Evaluation Controlled, Private, NDA Required, or with any similar restriction, the recipient may use it only for evaluation of Neuromorphyx products and may not reproduce, distribute, publish, upload, disclose, forward, train models on, or make it available to any third party without prior written approval from Neuromorphyx.

The recipient shall protect confidential materials with at least the same degree of care used to protect its own confidential information and in no event less than reasonable care.

The recipient shall promptly notify Neuromorphyx of any unauthorized access, disclosure, distribution, loss, or suspected compromise of confidential materials.

#### 18. AI Systems, Data Ingestion, and External Platforms

The recipient shall not upload this datasheet, related documentation, software, design files, support materials, confidential technical content, source code, firmware, images, test data, or supplier information to public AI systems, external model-training systems, shared third-party knowledge bases, external document-processing platforms, or any system where the content may be retained, reused, indexed, mined, trained on, or disclosed to third parties, unless expressly approved in writing by Neuromorphyx.

Internal use of this document shall remain limited to employees, contractors, and advisors who have a legitimate need to know and who are bound by confidentiality obligations no less protective than those applicable to the recipient.

#### 19. Privacy, Data Protection, and Lawful Deployment

NeuroSight IMX6XX EVS may be used to capture, generate, process, transmit, derive, or analyze visual, event-based, scene-derived, metadata, or sensor-related data.

The customer is solely responsible for ensuring that collection, processing, storage, transmission, retention, analysis, sharing, and use of such data complies with all applicable

privacy, data-protection, employment, surveillance, biometric, cybersecurity, sector-specific, and local laws.

The customer is responsible for all notices, consents, lawful bases, data-protection impact assessments, retention policies, access controls, security measures, data-subject rights, and deployment restrictions required for its final application.

#### 20. Export Control, Sanctions, and Import Compliance

The customer shall not export, re-export, transfer, resell, integrate, or use NeuroSight IMX6XX EVS, related software, technical data, documentation, or support materials in violation of applicable export-control, sanctions, embargo, customs, import, or restricted end-use laws.

The customer is responsible for obtaining any required export, re-export, transfer, import, end-use, or government authorization.

The customer shall not supply NeuroSight IMX6XX EVS to sanctioned parties, embargoed destinations, prohibited end users, restricted end uses, or any party that may use the product in violation of applicable law, supplier restrictions, or Neuromorphyx contractual obligations.

#### 21. Specification Changes and Product Revisions

Neuromorphyx may modify product specifications, sensor variant availability, PCB revision, component selection, firmware, software, connectors, cables, lenses, mount configuration, mechanical design, packaging, documentation, inspection process, test criteria, or manufacturing process to improve performance, reliability, manufacturability, compliance, supportability, or supply availability.

The customer shall verify the applicable product revision, documentation revision, and integration requirements before each purchase, integration milestone, pilot run, or production decision.

#### 22. Engineering Samples, Pilot Units, and Pre-Production Units

Early units, pilot units, engineering samples, pre-production modules, and limited-batch products may differ from future production versions.

Such units are supplied for evaluation and may not represent final yield, long-term availability, production repeatability, environmental robustness, calibration stability, lifecycle support, or production-level qualification.

The customer shall not use engineering samples, pilot units, or pre-production units for field deployment, safety-critical deployment, certified product release, or production shipment unless expressly approved in writing by Neuromorphyx.

#### 23. Warranty Limitation

Unless otherwise agreed in writing, NeuroSight IMX6XX EVS is supplied with a limited inspection period for defects in materials and workmanship.

Neuromorphyx does not warrant uninterrupted operation, error-free operation, compatibility with all host systems, suitability for a particular application, regulatory approval of the customer's system, long-term availability, production yield, field reliability, or fitness for safety-critical, regulated, or restricted deployment.

Any warranty is void for damage or failure caused by misuse, improper handling, improper storage, electrostatic discharge,

incorrect wiring, incorrect power supply, incorrect connector orientation, hot-plugging, modification, unauthorized repair, excessive mechanical stress, contamination, liquid exposure, thermal abuse, improper lens installation, software misuse, host-system fault, or operation outside specified limits.

#### **24. Limitation of Liability**

To the maximum extent permitted by applicable law, Neuromorphix shall not be liable for indirect, incidental, consequential, special, punitive, or exemplary damages, including loss of revenue, loss of profit, loss of data, loss of business opportunity, system downtime, product recall, regulatory enforcement, third-party claims, field failures, customer product delays, certification delays, or costs arising from customer integration, deployment, modification, resale, misuse, unlawful use, or failure to validate the final system.

Neuromorphix liability, if any, shall be limited to the amount paid by the customer for the specific NeuroSight IMX6XX EVS unit giving rise to the claim, unless a different limitation is expressly agreed in a signed written agreement.

#### **25. Purchase Terms and Contract Priority**

Customer purchases are subject to the applicable Neuromor-

phix quotation, invoice, purchase terms, evaluation product terms, end-use restrictions, and any signed agreement between Neuromorphix and the customer.

In the event of conflict between this datasheet and a signed written agreement, the signed written agreement controls. In the event of conflict between this datasheet and a purchase order issued by the customer, this datasheet and Neuromorphix-issued terms control unless Neuromorphix expressly accepts the conflicting purchase order term in writing.

#### **26. Authenticity and Controlled Versions**

The latest controlled version of this datasheet is available only through Neuromorphix-authorized channels.

Printed, forwarded, downloaded, extracted, copied, or unofficial versions may be outdated, incomplete, modified, or uncontrolled. In case of conflict, the latest version issued directly by Neuromorphix controls.

The recipient shall not remove watermarks, document identifiers, confidentiality markings, revision identifiers, access-control notices, or authenticity markers from this datasheet or related documentation.

## 8 Document Revision History

| Date       | Revision | Changes                   |
|------------|----------|---------------------------|
| 17/06/2026 | 1        | Initial template release. |