

NETRASEMI

POWERING INTELLIGENT EDGE

THE EDGE AI CHIP COMPANY

Company Overview

Netrasemi is an Edge AI semiconductor technology company building system-on-chips (SOCs) and silicon IP cores, founded in 2020. Their product range enables the new age need for optimal computing for smart vision products like cameras and smart sensors. Netrasemi has a power-efficient deep-neural AI acceleration core (NPU) and a rich portfolio of silicon IPs powered by a unique high-performance parallel processing architecture (US patented). They enable 100+ smart vision use cases with low-light imaging, on-camera video analytics and video compression. Its key target segments are defence, surveillance, smart sensors, smart infrastructure, machine vision and industry 4.0, robotics, drones, and autonomous vehicles, among others. Netrasemi is founded by a team of Technologists with significant experience in designing complex chips.

Netrasemi is recognized by MEITY GOI's semiconductor DLI (Design-linked Incentives) and C2S (chip2startup) schemes. Netrasemi has a primary design centre in Thiruvananthapuram. It is also selected by Taiwan's prestigious Taiwan Technology Arena (TTA) accelerator program with a facility in TTA-Taiwan.

Netrasemi DSA Based Silicon Solutions

*“Edge AI addressed with a Domain Specific Architecture (DSA)
Powered by Unique Silicon IPs & 2D/2.5D Integration”*

Key Differentiators

01

Highly parallel architecture with a Graph-stream execution pipeline for superior performance, minimal CPU involvement, and high power efficiency

02

Simplified AI/ML development with pre-built hardware functions and 2-100 TOPS performance. High-IO flexibility ensures seamless data flow.

03

Scalable and future-proof product roadmap with chiplet-based D2D integration, leveraging a proven design.

04

Assured Agile product development using Smart Edge software studio, Reference hardware Kits, and a set of Demo applications.

05

Highly secure chips with Chain-of-Trust featuring ARM TrustZone technology

Netra ML SOCs

NETRA A2000

AI APPLICATION PROCESSOR AND CHIPLET

(4 TOPS Performance)

- Video analytics
- Security & Surveillance
- Drones
- Robotics & Industry 4.0
- ADAS
- Defence



Release Date: Q2 2025

NETRA R1000

AI Microcontroller SoC

(2 TOPS Performance)

- Arduino/Pi-like platforms
- Privacy protected monitoring
- Smart Vision
- Home/ smart-city automation
- Smart sensors
- Machine Anomaly detection
- Toys, Educational Kits
- Retail & office
- Gesture recognition



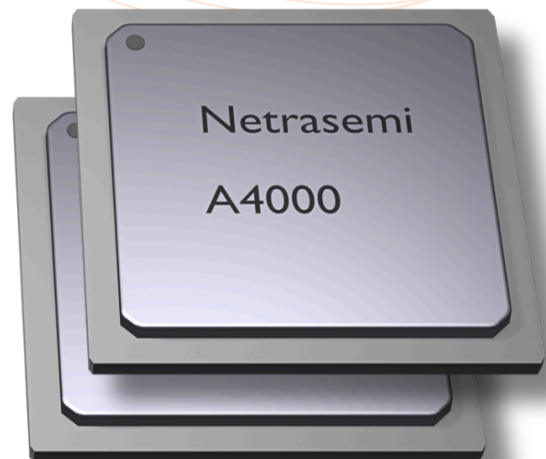
Release Date: Q2 2025

NETRA A4000 Series

Edge Server SoC/ PCIe Accelerator

(32-100 TOPS Performance)

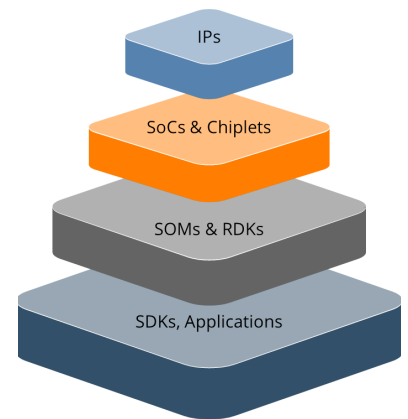
- Autonomous Vehicles
- Robotics
- Edge Servers
- Smart City platforms
- Intelligent NVR
- ADAS
- Defence/ Aero-Space



Release Date: Q2 2026

SOMs & RDKs

For optimal edge AI solutions with high-quality inference, field data is very critical. We enable you with prototype platforms for early deployments and data collection. Unlike servers and cloud, edge-AI demands a high level of solution-specific customisation. Netrasemi's proprietary silicon IP cores, Software Development Kits/Reference Design Kits (SDK/RDK) and Demo applications enable customers to go-to-market faster with unique features, agile development strategy and competitive roadmap.



Software

Netra SDK- Develop your Edge AI Application in minutes

NETRA SDK AI APPLICATIONS

- ✓ Tensorflow, TFlite, PyTorch, ONNX
- ✓ Optimised models, NN Libs, CV Libs
- ✓ GStreamer, GraphBuilder & Utilities
- ✓ KMD, Firmware (Linux, RTOS, Bare)

Netrasemi SoCs come with a flexible SDK (NetraSDK) that supports Tensorflow, Pytorch and ONNX frameworks. It has a rich portfolio of APIs, tools, AI models and sample applications to enable the agile development of AI and vision solutions. It allows developers with minimal coding skills to instantly port their AI models and applications to Netrasemi platforms with a very intuitive graph builder tool.

Contact Us



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