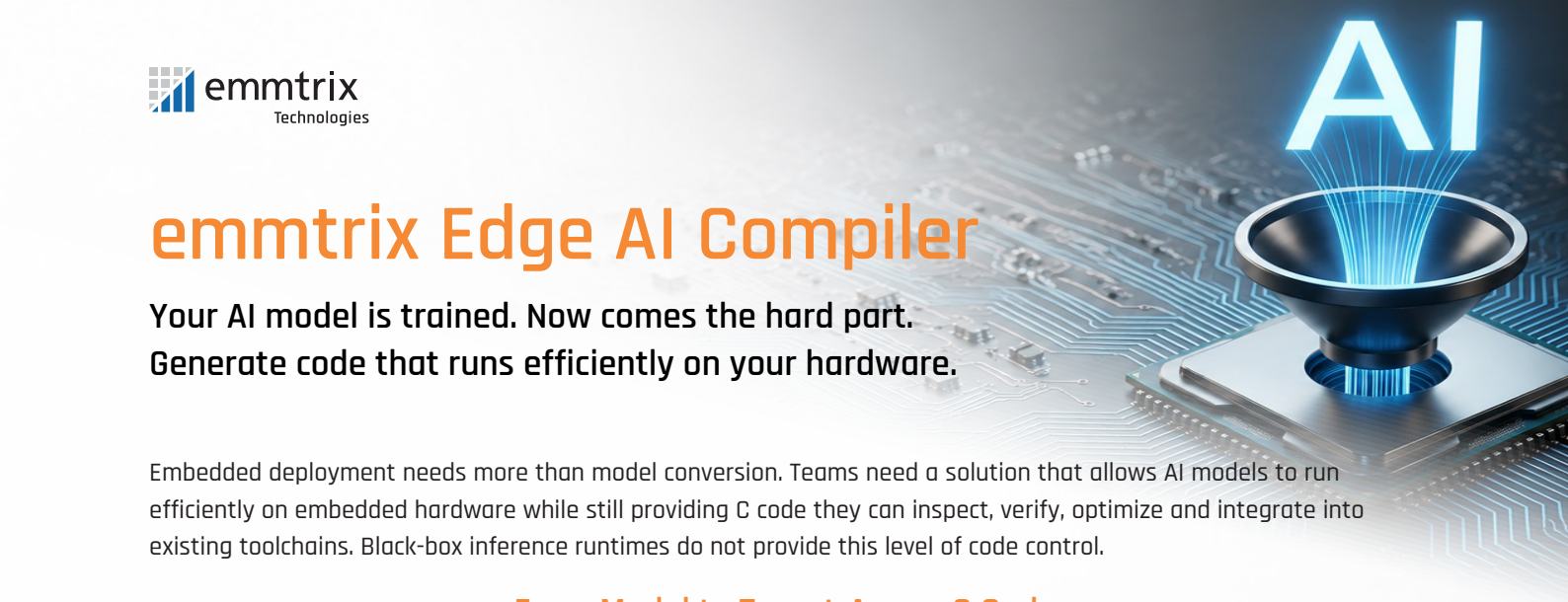
emmtrix Technologies

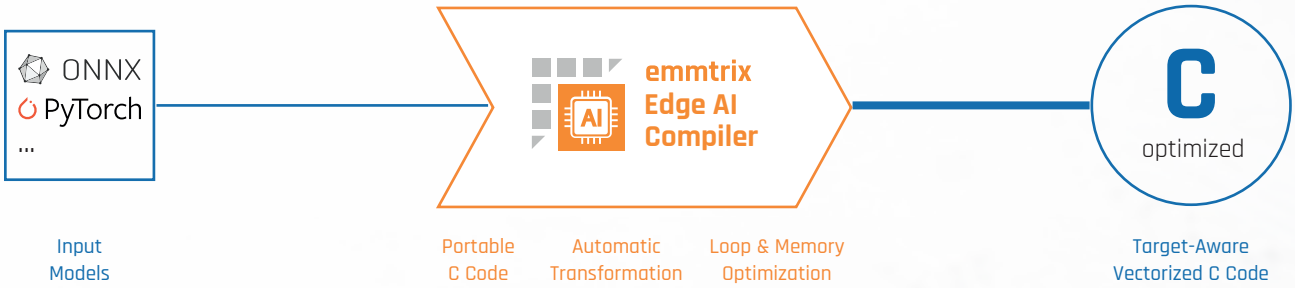


emmtrix Edge AI Compiler

Your AI model is trained. Now comes the hard part.
Generate code that runs efficiently on your hardware.

Embedded deployment needs more than model conversion. Teams need a solution that allows AI models to run efficiently on embedded hardware while still providing C code they can inspect, verify, optimize and integrate into existing toolchains. Black-box inference runtimes do not provide this level of code control.

From Model to Target-Aware C Code



The emmtrix workflow generates C code with explicit tensor structures, loop nests and low runtime assumptions for further analysis, verification and optimization.

Why Use emmtrix AI Compiler

Embedded Software Teams
Bring AI into existing C-based development flows without a large inference runtime as the central integration layer.

Compiler and Platform Teams
Get C you can inspect, transform and feed into your existing toolchain for vectorization and performance analysis.

Safety-Oriented Environments
Use generated code that is reproducible, reviewable and suitable for validation against ONNX runtime.

Automatic Transformation

- Code simplification: constant propagation, pointer resolution, temporary-variable elimination
- Loop optimization: normalization, fusion and simplification
- Memory-access optimization
- Target-aware code generation using intrinsics or Vector C extensions

All transformation and optimization steps are performed automatically. If required, the generated result can be further refined and controlled.

Currently Supported Target Families

- AURIX TC4x PPU
- ARM NEON/SVE
- RISC-V Vector Extension
- Others upon request

Works with estabished C toolchains and vector programming models.

Comprehensive AI Model Support

98.17% ONNX Backend Coverage
emx-onnx-cgen 1.2.2 against ONNX 1.20.1, stable-build scoreboard, 2026-03-25.

Infineon Associated Partner
Long-standing experience with the AURIX microcontroller family.

Book a Technical Demo

Find out how your AI projects can benefit from the emmtrix AI compiler.

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