



# eIQ<sup>®</sup> Inference with Glow NN

## eIQ-Glow

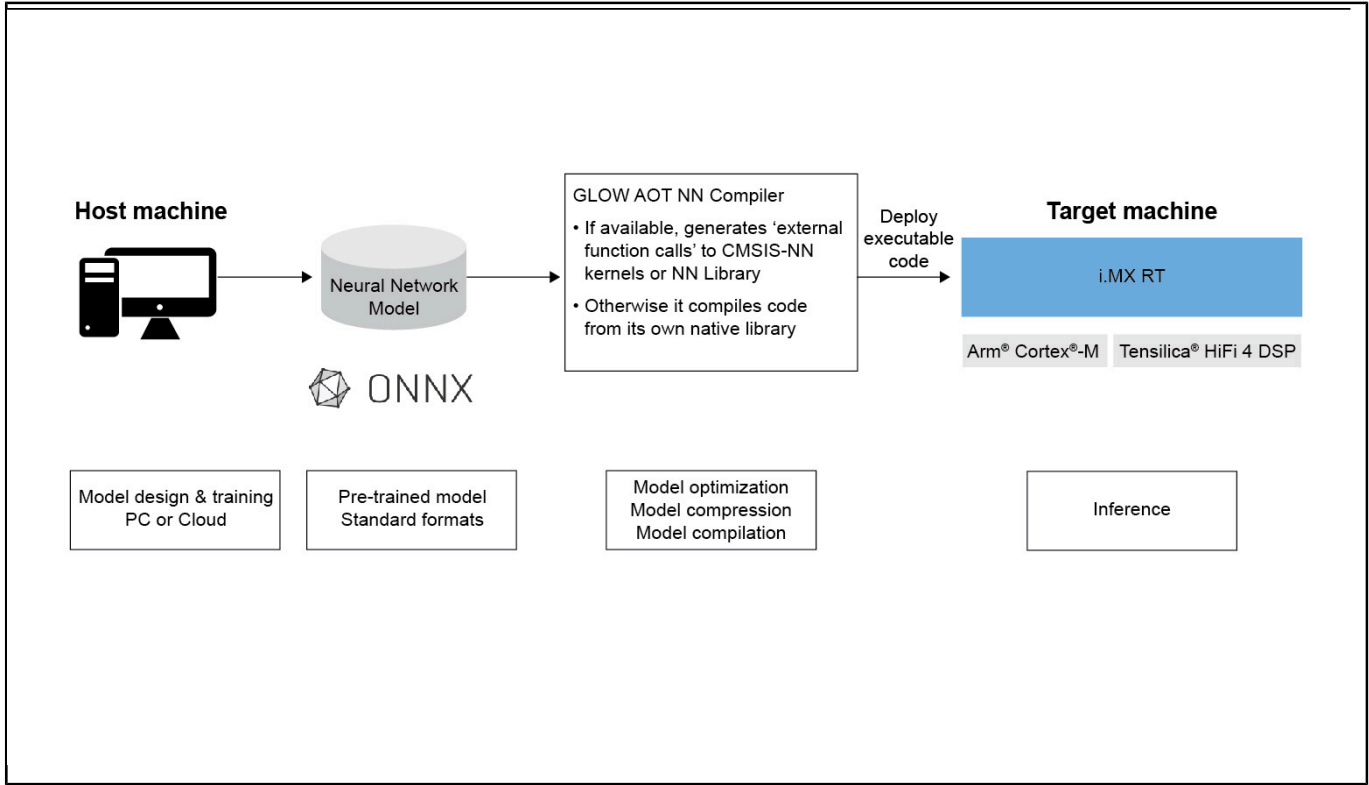
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The [eIQ machine learning \(ML\) software development environment](#) for i.MX RT crossover MCUs supports the [Glow machine learning compiler](#), which enables ahead-of-time compilation. The compiler converts the neural networks into object files, then the user converts this into a binary image for increased performance and smaller memory footprint as compared to a traditional runtime inference engine.

Glow is used as a software back-end for the PyTorch machine learning framework, including support for the ONNX model format.

Glow, or graph lowering, compiler derives its name because it lowers a neural network into a two-phase strongly typed intermediate representation. In the first phase, the optimizer performs domain-specific optimizations. The second phase allows the compiler to perform optimizations that take advantage of specialized back-end hardware features. It's in this second phase that NXP has added specialized support for Arm<sup>®</sup> Cortex<sup>®</sup>-M cores and Cadence<sup>®</sup> Tensilica<sup>®</sup> HiFi 4 DSP support, accelerating performance by utilizing Arm CMSIS-NN and HiFi NN libraries, respectively.

## eIQ® Inference with Glow NN eIQ® Inference with Glow NN Block Diagram



View additional information for [eIQ® Inference with Glow NN](#).

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