Imagination

Meet the PowerVR Series2NX NNA

A complete standalone hardware IP Neural Network Accelerator

Neural networks everywhere

The PowerVR Series2NX NNA is designed to power inference engines across a range of markets, with a highly scalable architecture designed to power future solutions across many others.

Mobile

PowerVR 2NX is the only IP solution today that can deliver against all of the requirements for a deployable mobile solution with its low power, low area, MMU and planned support for Android. In mobile devices where a GPU is mandated, companies can pair a new PowerVR Series9XE or 9XM GPU with the 2NX NNA in the same silicon footprint as a competing standalone GPU.

Smart surveillance

Considering bandwidth requirements, data confidentiality and other issues, surveillance cameras must be designed for some amount of 'edge' video analytics processing within the camera. Since these cameras typically have either no GPU or very small GPU, and lower performance CPUs, what's needed is an efficient, high-performance standalone neural network accelerator. The 2NX NNA is ideal, and is highly scalable to address both consumer and commercial implementations.

Automotive

As the number of autonomous vehicles and smart transportation systems increases over the next several years, these applications for neural networks in vehicles will continue to expand. Within automotive systems, a full hardware solution like the 2NX NNA is required to meet the associated performance points.

Home entertainment

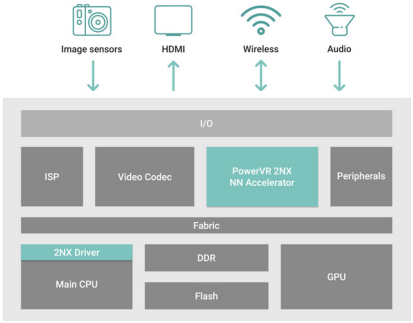
With unique features based on neural networks in their set-top boxes and televisions, companies can increase their differentiation and revenues. Key to implementing neural networks on these devices will be highly efficient bandwidth and low cost, as well as support for neural network APIs – features at the heart of the 2NX NNA.

PowerVR Series2NX key features/benefits

A standalone, dedicated hardware solution

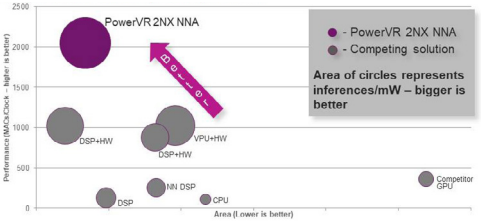
The PowerVR Series2NX Neural Network Accelerator (NNA) is a completely new architecture designed from the ground-up with 2x the performance and half the bandwidth of the nearest competitor. It is the first dedicated hardware solution with flexible bit depth support from 16-bit down to 4-bit, and it is architected to support multiple operating systems, including Linux and Android.

Companies building SoCs for mobile, surveillance, automotive and consumer systems can integrate the new PowerVR Series 2NX NNA for high-performance computation of neural networks at very low power consumption in minimal silicon area.



PowerVR 2NX NNA enables the most efficient solutions

- The industry's highest inference/mW IP cores to deliver the lowest power consumption
- The industry's highest inference/mm2 IP cores to enable the most cost-effective solutions
- The industry's lowest bandwidth solution – with support for fully flexible bit depth for weights and data including low-bandwidth modes down to 4-bit
- Industry-leading performance of 2048 MACs/cycle in a single core, with the ability to go higher levels with multi-core



For more information visit: https://goo.gl/eow4Wy