



Renesas have a new version of their R-Car V3H SoC (system on chip) that delivers high computer vision performance and AI processing at industry-leading low power levels, targeting automotive front cameras for use in mass-produced Level-3 and -4 AVs. It's optimised for use in stereo front cameras, and achieves fully five times the computer vision performance and over double the deep neural network performance of its predecessor, the V3M. Part of the Renesas autonomy platform for ADAS and automated driving, the V3H enables design flexibility for Tier 1s and automakers to map their own road from assisted to automated vehicles.

The V3H focuses on architecture optimisation for computer vision processing, enabling all relevant ADAS functions from conditional to highly automated driving. Leveraging Renesas' concept of heterogeneous computer vision cores based on the IMP-X5+ image recognition engine and dedicated hardware accelerators, the V3H achieves advanced sensing capabilities with algorithms including Dense Optical Flow, Dense Stereo Disparity, and Object Classification. The integrated IP for Convolutional Neural Networks (CNN) accelerates deep learning. All of this is done with a remarkably low power consumption of only 0.3 watts.