## AN IMAGE RECOGNITION SoC "ViscontiTM" FOR AUTOMOTIVE APPLICATIONS

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## ABSTRACT

In this paper, we present an image recognition SoC named "ViscontiTM" [1], which has been developed to provide advanced safety assistance for automobile drivers. This SoC is an 18-GOPS multi-VLIW processor, in which three 3-way VLIW processors and peripheral modules such as memory controllers, video I/Os and an affine transformation module are integrated. The SoC design is based on a configurable MeP (Media embedded Processor) architecture [2,3], which supports superior capabilities for automobile image processing, i.e. high compute performance, low cost and low power dissipation. We have implemented several types of our previously proposed image recognition algorithms on the SoC, and describe three example applications briefly in this paper.