

EUROPRACTICE Design Contest
TSMC 90nm technology
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Design Contest Winning Design

A Field Programmable Analog Array with 1.4 GHz Unity-Gain Bandwidth

By

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Certified for free fabrication by
EUROPRACTICE on a *mini@sic* run

A handwritten signature in black ink, appearing to read 'Carl Das'.

Dr. Carl Das
EUROPRACTICE

The design implements a field programmable analog array (FPAA) dedicated to continuous-time analog filters for high frequencies with large scale digital adjustment and reconfigurable topology. The structure of the FPAA developed consists of a two-dimensional array of configurable analog blocks (CABs), which include Gm-cells as active transconductors.

The whole design is carried out with the Cadence IC 6.1 and SOC 8.2 Open Access flow with TSMC90 OA design kit and standard-cell libraries. It facilitates state-of-the-art CAD methodologies like OA-database interoperability of IC and SOC package, Constraint Driven Layout, AMS-Designer and the APS simulator.

