

# SMU Architecture – High Current Resolution

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## Abstract

The static I-V characteristic of a semiconductor device is an essential term for the extraction of device parameters itself. It is very common to plot I-V curves with semiconductor device parameter measurement and the source-measure unit (SMU) is one of crucial components. In this paper, a simple architecture is proposed to implement a high precision SMU at a signal level above 1pA.

Keyword : SMU, guard ring, OP amp, DUT, Darlington pair