

**Abstract:** The design of a CMOS fully differential second generation current conveyor is presented. The proposed circuit was designed to incorporate the current sensing technique into a fully differential version of a differential difference amplifier (DDA). A low power class AB circuit realisation has been implemented in 1.2  $\mu\text{m}$  CMOS technology. A variable gain amplifier (VGA) designed to incorporate the circuit has been shown to exhibit constant, low power consumption and constant, wide bandwidth at different gain settings. Experimental results of the proposed circuits are presented.