

**Abstract:** A new universal voltage-mode second-order filter circuit is presented. The circuit uses three current-feedback operational amplifiers, three grounded capacitors and three resistors. The circuit has three inputs and three low-impedance outputs and can realize all standard filter functions, e.g. low pass, high pass, band pass, notch and all pass, without changing the circuit topology. The proposed circuit enjoys independent grounded-resistance control of the parameters  $\omega_0$  and  $\omega_0/Q_0$ , as well as low active and passive sensitivities