

Abstract: A universal active biquad using the four-terminal floating nullors (FTFNs) is presented. The proposed circuit uses two FTFNs, two capacitors and two resistors. The proposed circuit has two input currents and can provide two high-impedance output currents. Without changing the circuit topology, the output currents can realize lowpass, highpass, bandpass, and allpass transfer functions. A notch transfer function can be obtained by adding a voltage-to-current converter using an additional FTFN. The proposed circuit enjoys low passive sensitivities and orthogonal tuning of the parameters ω_0 and ω_0/Q_0