

Abstract: A universal active biquad using the four-terminal floating nullors (FTFNs) is presented. The proposed circuit uses two FTFNs, three capacitors and two resistors. The proposed circuit has three input voltages and can simultaneously provide a high-impedance output current and/or an output voltage. Without changing the circuit topology, the output voltage can realize lowpass, highpass, bandpass, notch and allpass transfer functions and the output current can realize bandpass and highpass transfer functions. The proposed circuit enjoys low active and passive sensitivities and independent control of the parameters ω_0 and ω_0/Q_0 .