



Figure 2 The oscilloscope waveforms within the active-balance circuit show the power-supply rail voltage (top trace), the midpoint voltage at the junction between the two capacitors (middle trace), and the charge/discharge current (lower trace, scaled to 1A per division). The traces reflect a 1A charge interval to 5V, followed by a 1A discharge to 0V. The waveform steps at the start of the charge and discharge intervals are due to the capacitor's internal ESRs.