



Figure 1 In an analog power supply with analog circuit protection, the circuit-protection elements are fixed, and both add cost and decrease reliability. You can replace all the pale-blue components with a mixed-signal microcontroller, such as the C851F330 from Silicon Labs (a). In an analog power supply with a microcontroller, the microcontroller closes the power-supply-control loop, has additional bandwidth to run the PMBus protocol, and can monitor the circuit-protection points through an onboard ADC, thus replacing the need for external analog monitoring and protection circuits (b).