



Figure 1 In this hot-swap controller, the ground terminal sends power to the dc/dc converter through a Schottky diode. The dc/dc block is an isolated supply that generates the payload power-supply voltage. The dc/dc converter's negative terminal connects to the -48V supply branch through a MOSFET switch and a current-sense resistor. The hold-off capacitor across the dc/dc converter stores enough charge to keep the board operational during backplane brownouts. The controller uses a current-sense resistor and the V_{MOSFET} signal to monitor the MOSFET's current and voltage, enabling control of the MOSFET power dissipation during inrush.