



SCT236x Evaluation Board User's Guide

FEATURES

- Wide 4V-28V Input Voltage Range
- 0.6V-14V Output Voltage Range (SCT2360)
- 0.6V-6V Output Voltage Range(SCT2361)
- 6A

x 0.6V-

QUICK START PROCEDURE

Evaluation board EV236x-B-02A is easy to set up to evaluate the performance of SCT2360 and SCT2361 synchronous step-down DCDC converter. Refer to Figure 1 and Figure 2 for proper measurement equipment setup and follow the procedure below:

- 1.

NOTE:

SCHEMATIC DIAGRAM

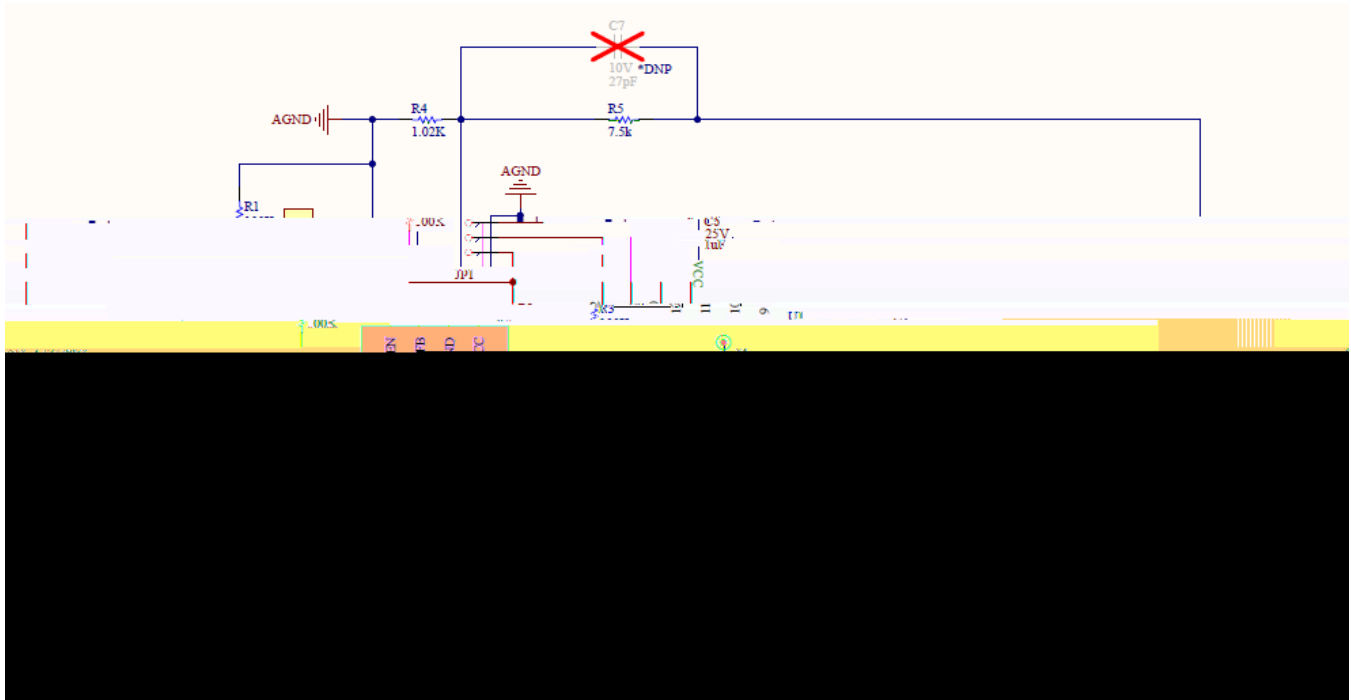


Figure 3. SCT2360EVM Schematic

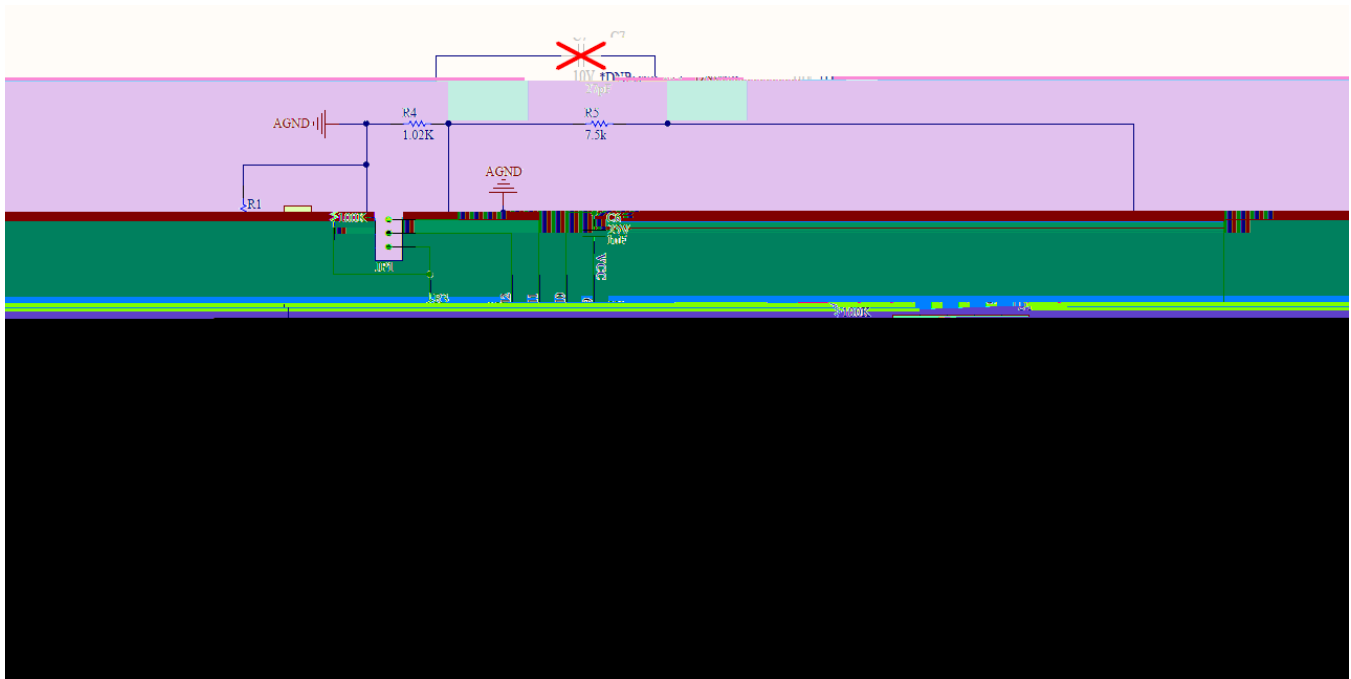


Figure 4. SCT2361EVM Schematic

BILL OF MATERIALS

Table 2. SCT2360EVM Bills of Materials

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4V-28V Vin, 6A, High Efficiency Synchronous Step-down DCDC Converter

OPTIONAL MODIFICATION

The SCT2360 and SCT2361 is enabled when the VIN pin voltage rises above 3.8V and the EN pin voltage exceeds the enable threshold of 1.18V. The device is disabled when the VIN pin voltage falls below 3.5V or when the EN pin voltage is below 1.1V. An internal 1.5uA pull up current source to EN pin allows the device enable when EN pin floats.

EN pin is a high voltage pin that can be connected to VIN directly to start up the device.

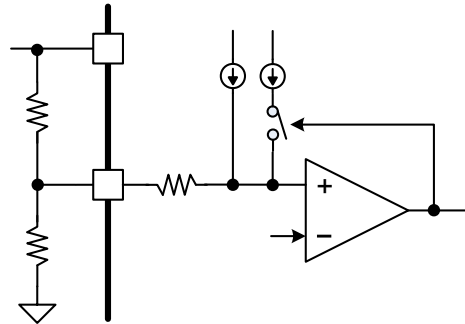
For a higher system UVLO threshold, connect an external resistor divider (R1 and R2) shown in Figure 16 from VIN to EN. The UVLO rising and falling threshold can be calculated by Equation 1 and Equation 2 respectively.

$$V_{\text{rise}} = 1.18 \left(1 + \frac{R1}{R2} \right) - 1.5\mu\text{A} \cdot R1 \quad (1)$$

$$V_{\text{fall}} = 1.1 \left(1 + \frac{R1}{R2} \right) - 5.5\mu\text{A} \cdot R1 \quad (2)$$

where:

- V_{rise} is the rising threshold of Vin UVLO.
- V_{fall} is the falling threshold of Vin UVLO



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