

## NIS5101 SMART HotPlug™ Demonstration Board

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### APPLICATION NOTE

#### General Description

The NIS5101 Demo board is a simple circuit which biases the NIS5101 device so that its functionality can easily be observed. It contains both input and output capacitors, as well as resistors for the UVLO and OVLO settings. The demo board defaults are for a 33 volt UVLO turn-on point, and a 75 volt OVLO shut down point. The current limit circuit is set for 4.5 amp limit.

Input power and loads can easily be connected via banana jacks mounted on the board.

#### Features

- Integrated Power FET (no external power components required)
- Simple Adjustments for OVLO and UVLO
- 100 Volt Operation
- Thermal Limit Protection

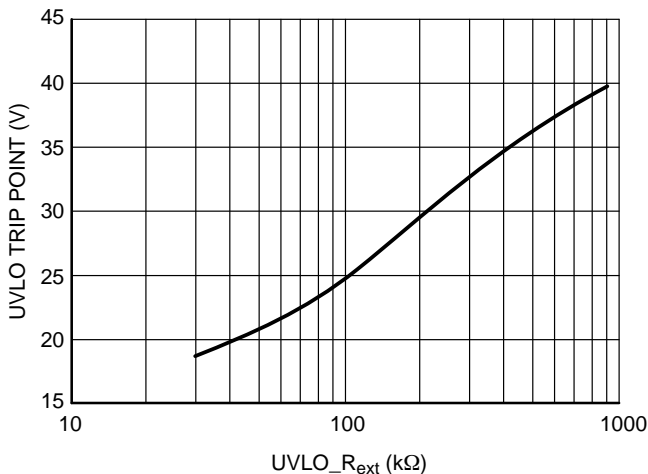


Figure 1. UVLO Adjustment

#### UVLO

The UVLO is set for a trip point of 33 volts, but can easily be modified for other voltages. Select the desired voltage from the chart in Figure 1, and install the corresponding resistor into the board.

#### OVLO

The OVLO circuit is set for a trip point of 75 volts. This setting can easily be changed by selecting the desired trip voltage from the chart in Figure 2 and installing the corresponding resistor into the board.

The OVLO circuit can be programmed as low as 20 volts, to allow operation for lower input voltages such as a 24 volt system.

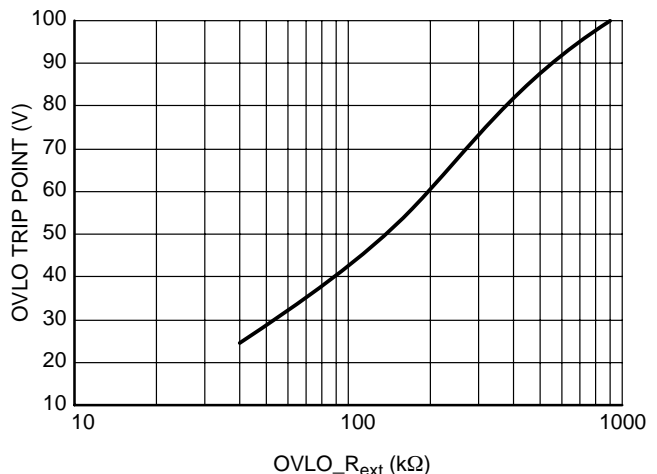


Figure 2. OVLO Adjustment

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## Current Limit

The current limit circuit has a 20 Ω resistor installed which will allow the maximum current of 4.5 amps before invoking the current limit circuit. To change the current limit circuit, select the corresponding resistance value for the desired peak current setting from the chart in Figure 3.

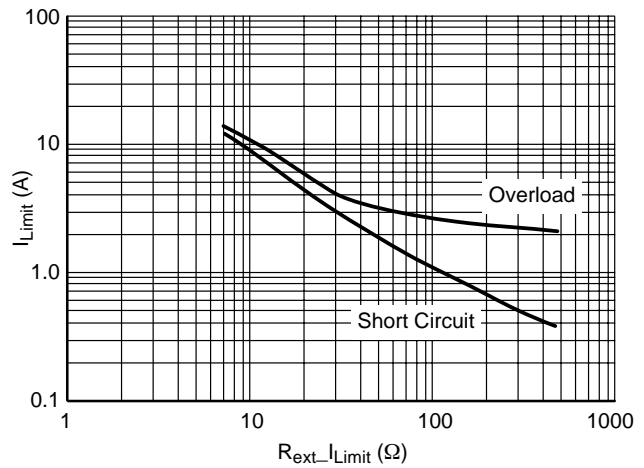


Figure 3. Current Limit Adjustment

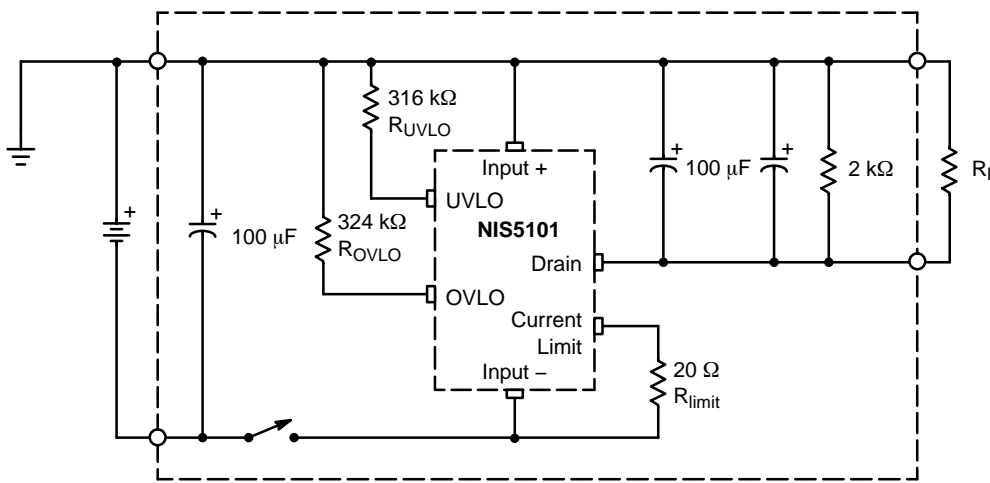



Figure 4. Demo Board Schematic

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