LMP8358 Evaluation Board (551600315-001) User Guide

The LMP8358 includes many features that are not explained in this Evaluation Board User Guide. Please refer to the LMP8358 datasheet for a description of the features of the LMP8358.

To use the LMP8358 Evaluation Board set the following as described below:

J1: Serial or Parallel Communication. Used to set whether the LMP8358 uses serial or parallel communication. The drawings on the PCB on the right side of J1 show how to short the jumpers. When using serial communication J15 is used to input the SPI communication signals. If using parallel communication J7, J8, and J9 are used to set the gain, J10 is used to shutdown the LMP8358. See **Communication Mode Selection** section of the datasheet.
J2: Reference select. This is used to select whether the reference is connected to GND (short GND and center pins), connected to V- (short V- and center pins), or external (no pins shorted, the external reference is input on J14).
J3: +Input. The signal on this BNC is connected to the +IN pin of the LMP8358.
J4: Output. The output of the LMP8358 is connected to this BNC.
J5: Input short. This jumper is used to short an input. If the LMP8358 is to be used with a single input, the signal is connected to J3 or J6, the other input is shorted to ground (center pin) with this jumper.
J6: -Input. The signal on this BNC is connected to the -IN pin of the LMP8358.
J7, J8, J9: These jumpers are used to set the gain of the LMP8358 when used in parallel mode. Connecting the V+ and center pins will input a high signal to the LMP8358, connecting the V- and center pins will input a low signal to the LMP8358. See **Parallel Control Interface Mode** section of the datasheet.
J10: Shutdown. This jumper is used to enable or shutdown the LMP8358 when used in parallel mode. Connecting the V+ and center pins will input a high signal to the LMP8358 which will put it in shutdown mode, connecting the V- and center pins will input a low signal to the LMP8358 which enables the LMP8358. See **Parallel Control Interface Mode** section of the datasheet.
J11: V+, Positive power supply.
J12: GND, Power ground connection.
J13: V-, Negative power supply. The LMP8358 can be used with a single supply or split supplies. To use with a single supply short J13 (V-) to ground.
J14: External Reference. Connect an external reference if no pins of J2 are shorted.
J15: Serial Communication. The SPI signal is input on this connector when the LMP8358 is used in serial mode. See **Serial Control Interface Mode** section of the datasheet.
R4, R9: External Gain Set. Use these resistors to externally set the gain. See **Gain (Serial, Parallel)** section of the datasheet.
C3: Filter Capacitor. Install a capacitor when an external filter is used. See **Filter and External Filter Capacitor** section of the datasheet.
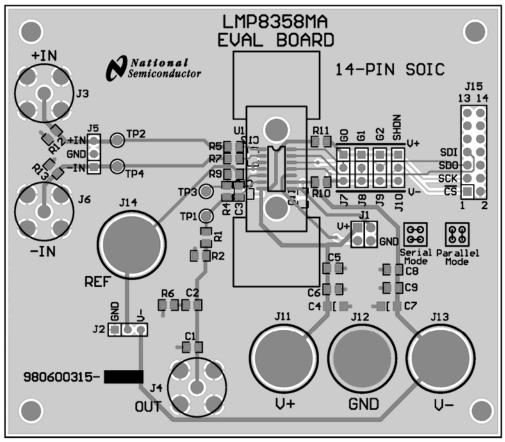R1, R2, R6, C1, C2: External Load. These components are used to set various loads on the output of the LMP8358.
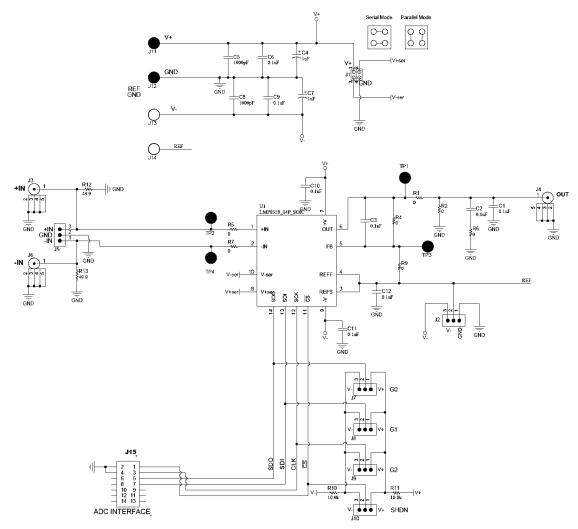
Figure 1. PCB Layout

Figure 2. PCB Schematic

IMPORTANT NOTICE