DS1843 Evaluation Kit User Guide

UG6224; Rev 0; 10/15

Below are instructions for connecting and powering the DS1843 evaluation kit. See the schematic at the end of this document for more information.

1. Connect GND, then V_{CC} to a power supply. V_{CC} should be between 3.0V and 5.5V. V_{CC} is filtered on the EV kit using a 600Ω ferrite bead.

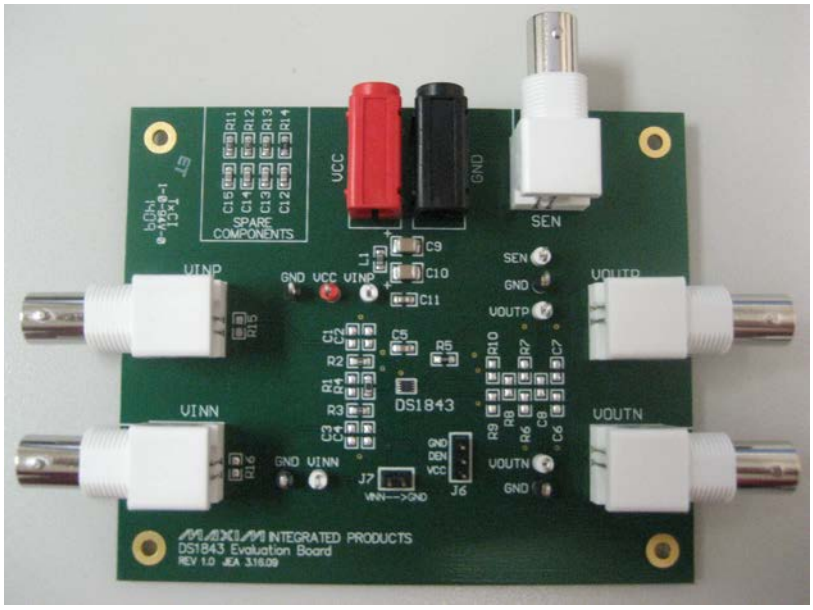
2. Jumper J6 is provided to switch DEN (differential output enable) between V_{CC} and GND to select single-ended or differential output. If DEN is connected to GND, then single- ended output is enabled. Jumper DEN to V_{CC} for differential output.

3. A BNC jack is provided for the SEN (sample enable) input. A 50Ω termination to ground (R5) is included on the EV kit board. Apply a pulse of 300ns or greater to this input. Ensure that the pulse generator is set up with a 50Ω series resistance.

4. Inputs V_{INP} and V_{INN} are connected to BNC jacks. Several footprints have been provided so the loading applied to the inputs can be changed. This EV kit is shipped configured for a current-source input with a 1.6kΩ resistor between V_{INP} and V_{INN}. V_{INN} can be connected to GND using the jumper J7 "V_{INN}→GND."

5. The outputs V_{OUTP} and V_{OUTN} are also connected to BNC jacks. Again, several footprints have been included to add loading to these outputs. This kit is shipped with no loading applied to the two output pins.

6. All optional components use 0805 footprints. The *Spare Components* section of the board contains some optional components that can be used to load either the inputs or the outputs of the DS1843.



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