MAX3785UTT Evaluation Kit

Quick Start

1. Connect a +1.8V power supply to J1 (VCC). Connect the power supply ground to J2.

2. Connect DC blocks or bias T's to the inputs IN+ and IN-. Then connect a differential signal between 400 and 1600 mVp-p to the inputs using 50 Ohm cables. If DC blocks are not used, then the high level for each input signal must be VCC.

3. Connect DC blocks or bias T's to the outputs OUT+ and OUT-. Then connect signals from the DC blocks to an oscilloscope with 50 Ohm input terminations.

4. At the signal source, start with a short and simple pattern such as a 2^7-1 PRBS. The data rate can be from 1.0 Gbps to 6.4Gbps.

5. Evaluation: After the EVKit has been initially checked out, evaluation can begin with a FR4 pc board. It is advisable to start with a board length of 20 inches and then progress to longer lengths. For data rates of 3.125Gbps and below, the part will equalize board lengths up to 40 inches. For data rates 6.4 Gbps and below the part will equalize board lengths up to 30 inches. When connecting the equalizer with the board, keep the cables from the board to the equalizer as short as possible.

WARNING! The SMA connectors are directly connected to the chip's inputs and outputs. To avoid damage to laboratory equipment or device, always use DC blocks or Bias T's.

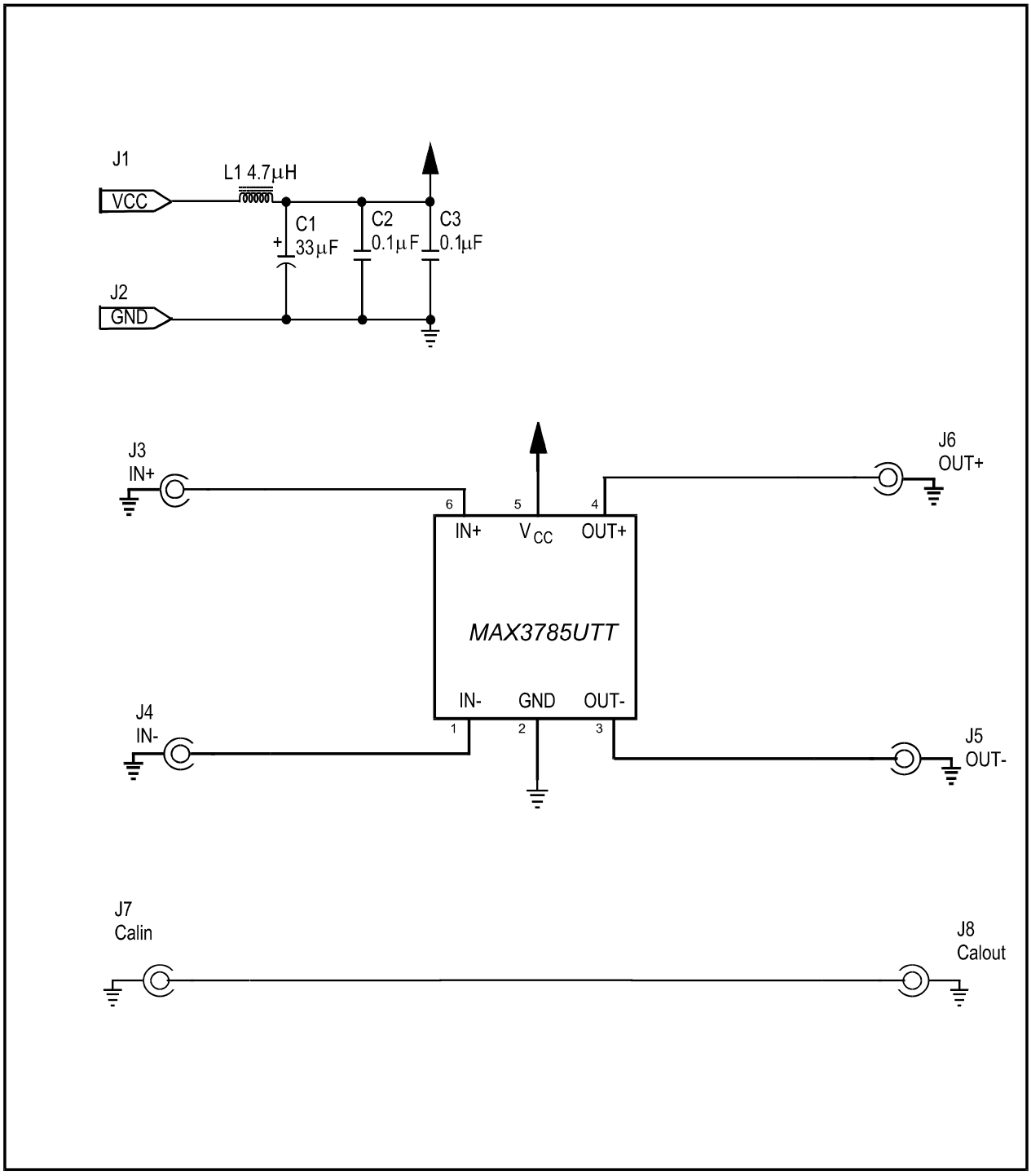

Figure 1. MAX3785UTT EV Kit Schematic.

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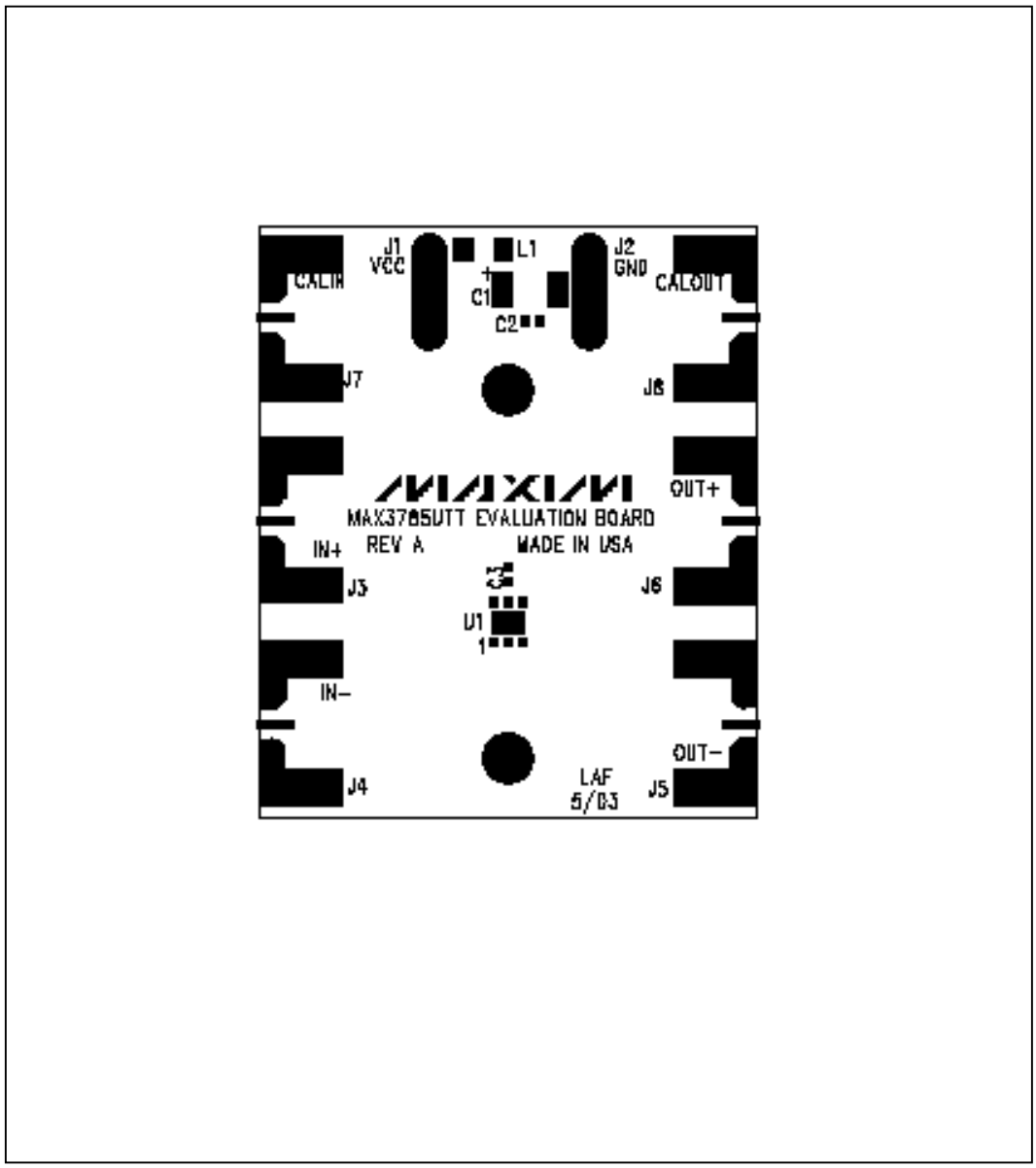

Figure 2. MAX3785UTTA EV Kit Component Placement Guide – Component Side (2X)

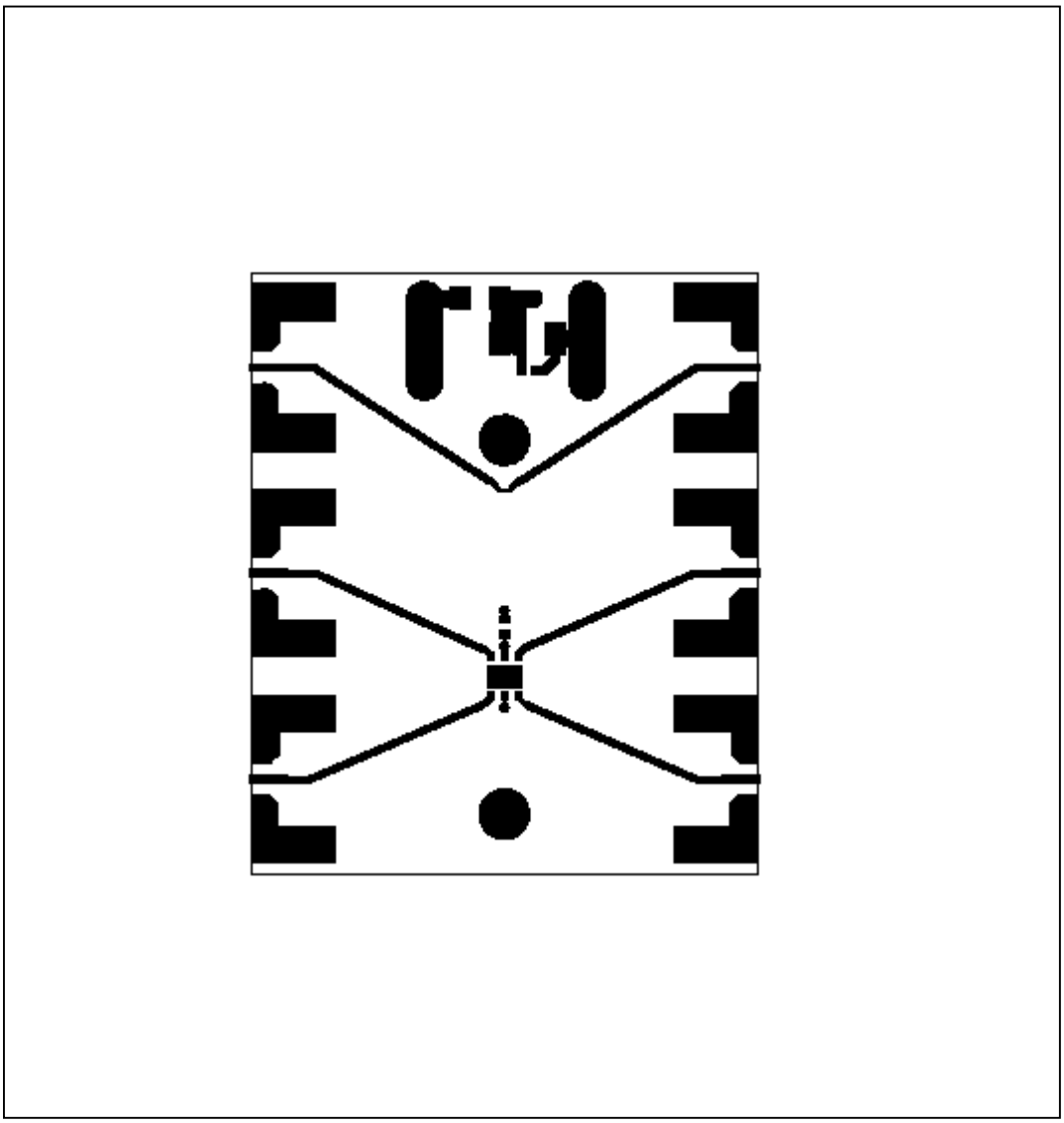

Figure 3. MAX3785UTTA EV Kit PC Board Layout – Component Side (2X), layer 1.

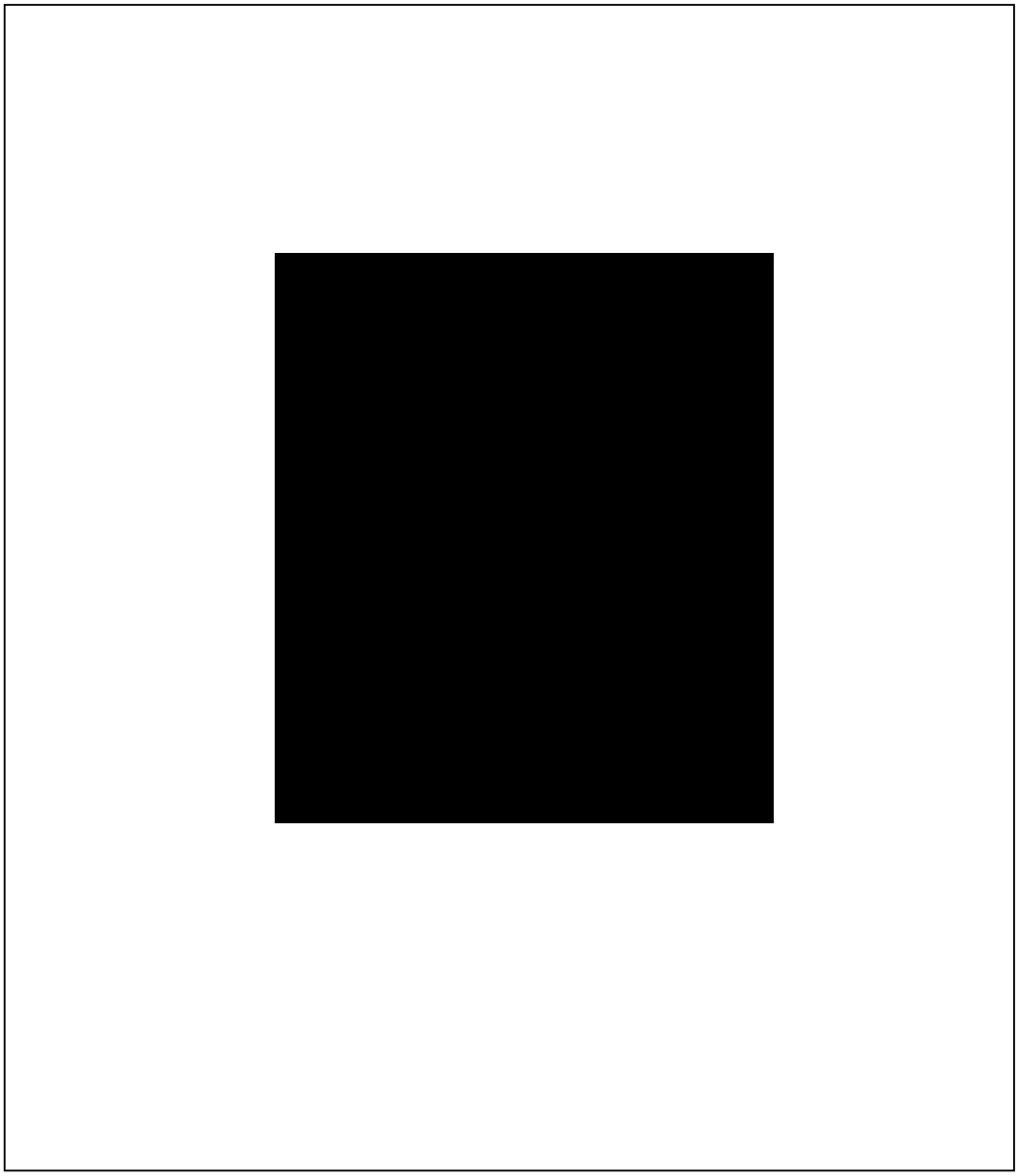

Figure 4. MAX3785UTTA EV Kit PC Board Layout – Ground Plane (2X), layer 2.

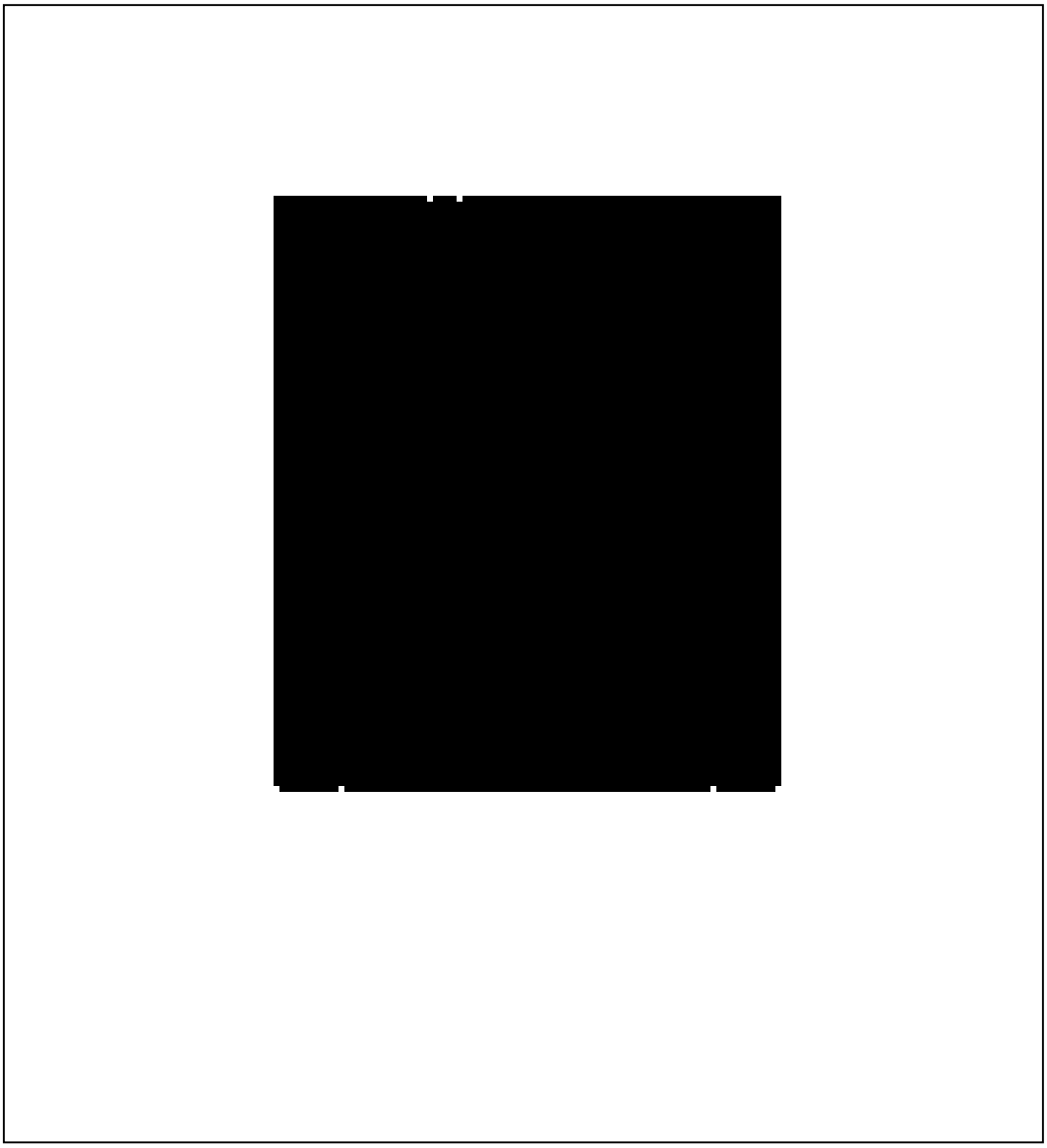

Figure 5. MAX3785UTT8A EV Kit PC Board Layout – Power Plane (2X), layer 3.

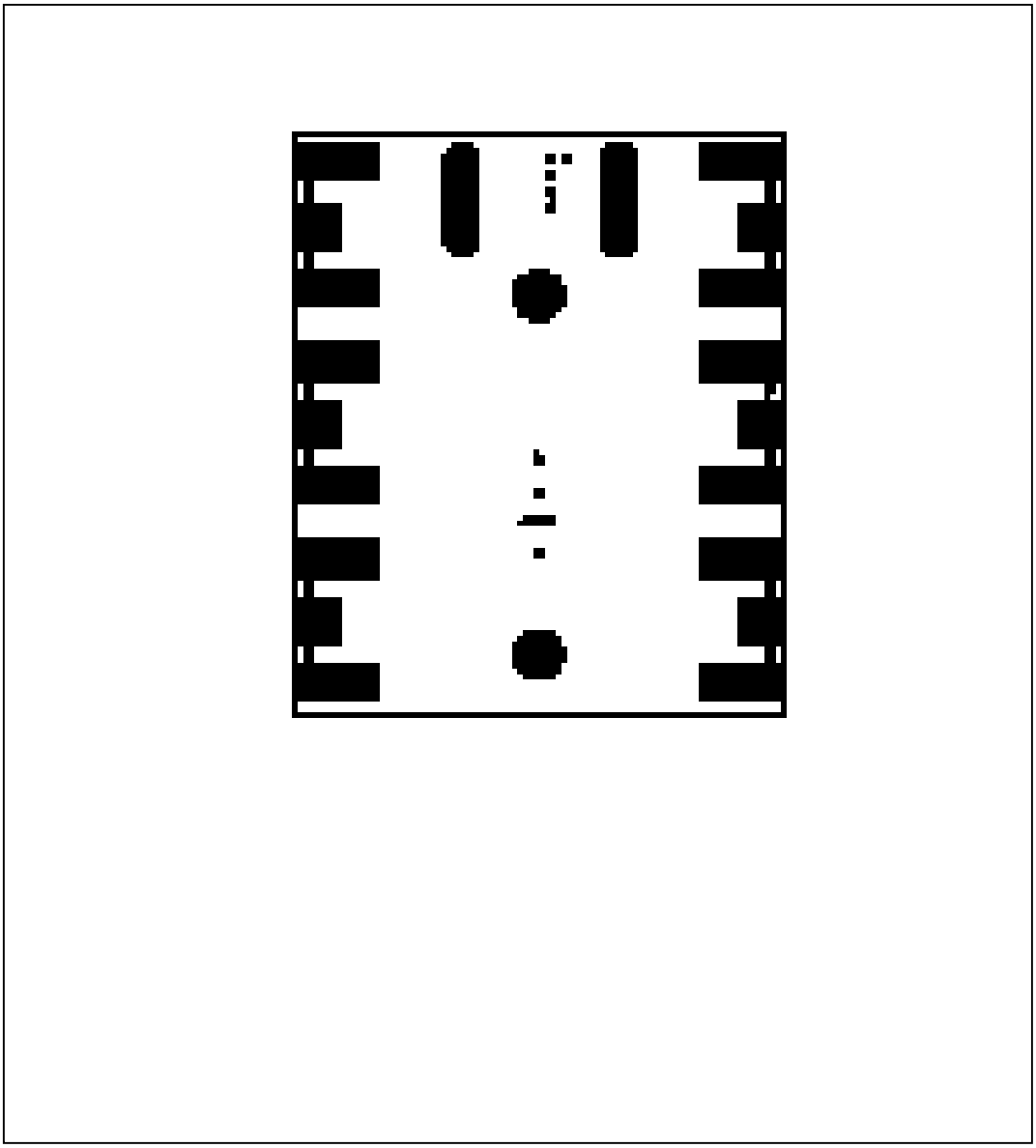

Figure 6. MAX3785UTTA EV Kit PC Board Layout – Bottom Side (2X), layer 4.

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