

MAXIM

MAX3801 Evaluation Kit

Evaluates: MAX3801

General Description

The MAX3801 evaluation kit (EV kit) simplifies evaluation of the MAX3801 adaptive equalizer. The EV kit enables testing of all the device's functions. SMA connectors with 50Ω controlled-impedance connections to the MAX3801 are provided for all data input and output ports to facilitate connection to high-speed test equipment.

Component List

DESIGNATION	QTY	DESCRIPTION
C1, C4, C5, C6, C8, C9, C10, C15-C18, C24, C25	13	0.1μF ±10% ceramic capacitors (0603) Murata GRM39X7R104K010A
C11	1	33μF ±10% tantalum capacitor 'C' case, AVX TAJC336K016
R1, R2, R3	3	100kΩ ±5% resistors (0603)
U1	1	MAX3801UGG 24-pin QFN-EP Note: U1 has an exposed paddle that requires it to be solder attached to circuit board to insure proper functionality of part.
J3, J4, J7, J8	4	SMA edge-mount connectors Johnson 142-0701-801, or Digi-Key J502-ND Note: Cut center pin to approximately 1/16in length.
TP1, TP2, TP3, TP5, TP6, J9, J10	7	Test points, Digi-Key 5000K-ND
None	1	MAX3801 EV kit Rev A circuit board
None	1	MAX3801 data sheet
None	1	MAX3801 EV kit data sheet

Features

- ◆ SMA Connectors for All High-Speed Inputs and Outputs
- ◆ Fully Assembled and Tested

Ordering Information

PART	TEMP RANGE	IC PACKAGE
MAX3801EVKIT	0°C to +85°C	24 QFN-EP

Component Suppliers

SUPPLIER	PHONE	FAX
AVX	843-444-2863	843-626-3123
Digi-Key	218-681-6674	218-681-3380
EF Johnson	402-474-4800	402-474-4858
Murata	415-964-6321	415-964-8165

Note: Please indicate that you are using the MAX3801 when contacting these component suppliers.

Quick Start

- 1) Connect a +3.3V power supply to J9 (VCC). Connect the power-supply ground to J10.
- 2) Connect a differential or single-ended input signal (differential voltage amplitude between 700mV and 1100mV) to a cable. Connect the other end of the cable to the cable equalizer inputs at SMA edge connectors J8 (EIN-) and J7 (EIN+).
- 3) Connect a 50Ω oscilloscope to SMA edge connectors J3 and J4 to observe the output of the cable equalizer.
- 4) The cable integrity monitor (CIM) outputs can be monitored at TP1 (CIM-) and TP2 (CIM+).
- 5) The loss of signal ($\overline{\text{LOS}}$) output can be monitored at TP3.

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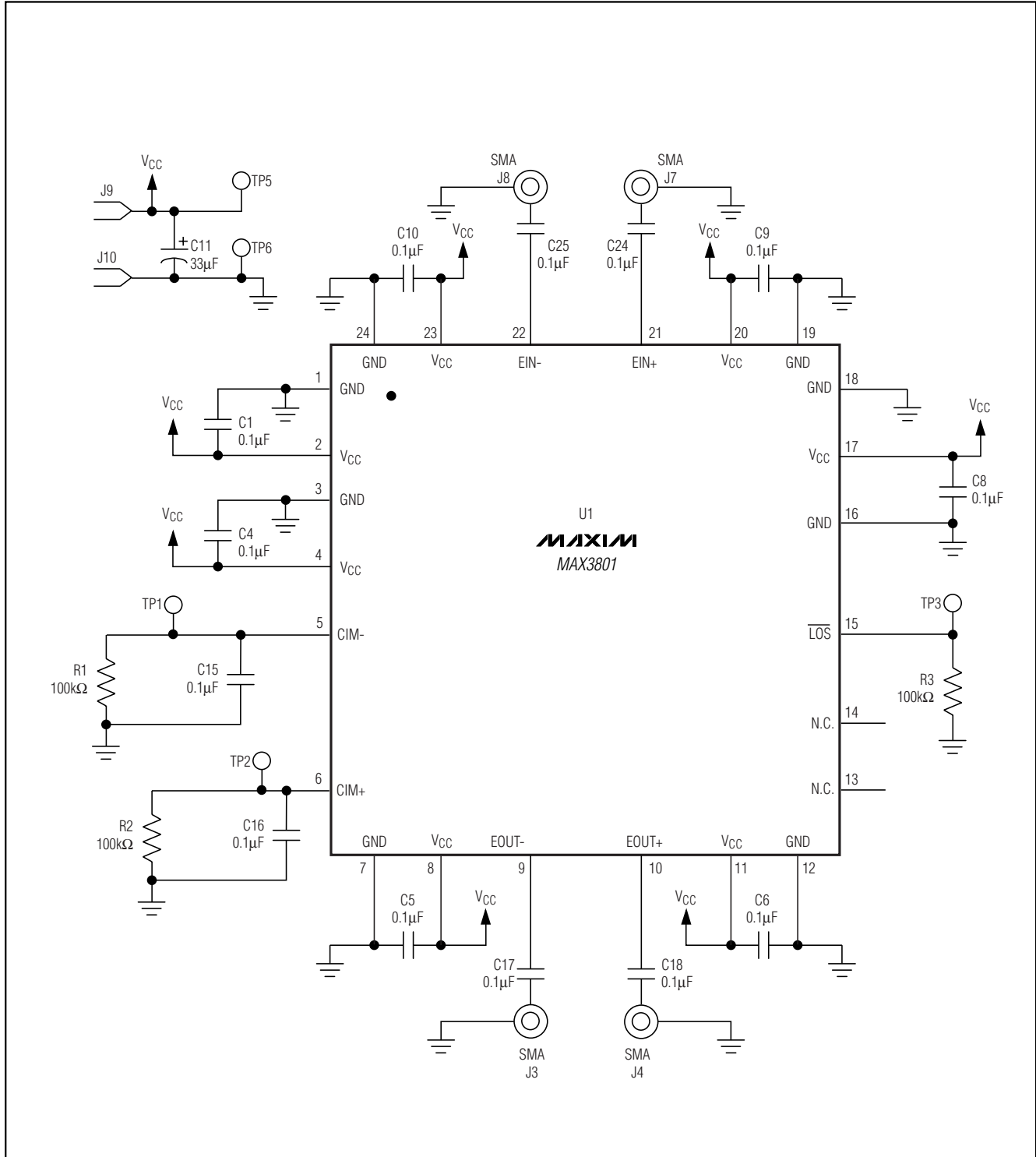


Figure 1. MAX3801 EV Kit Schematic

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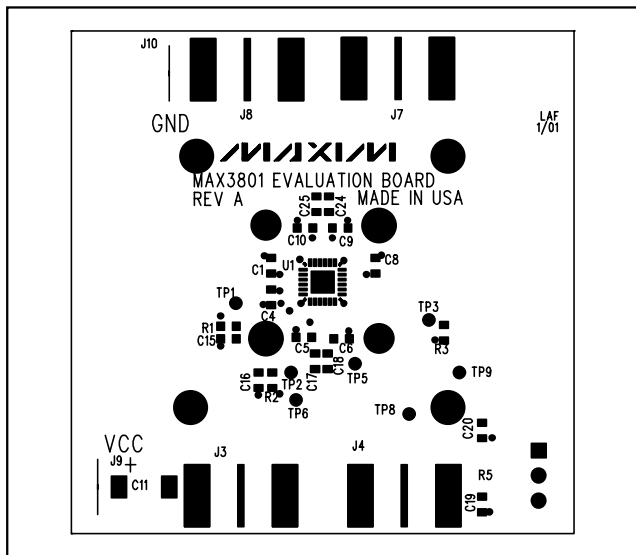


Figure 2. MAX3801 EV Kit Component Placement Guide—Component Side

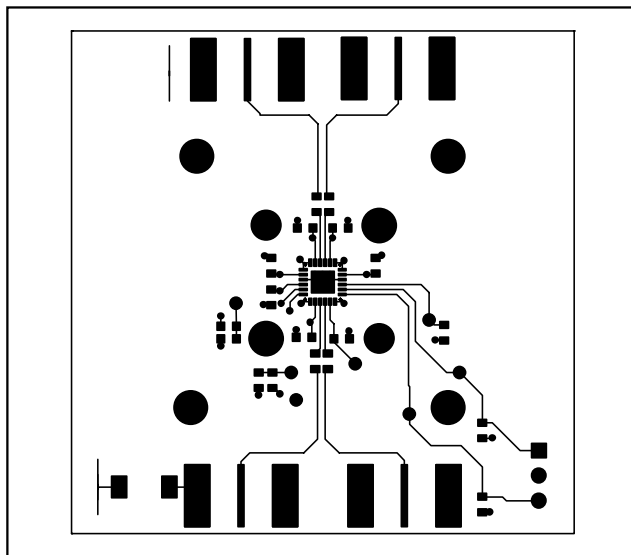


Figure 3. MAX3801 EV Kit PC Board Layout—Component Side

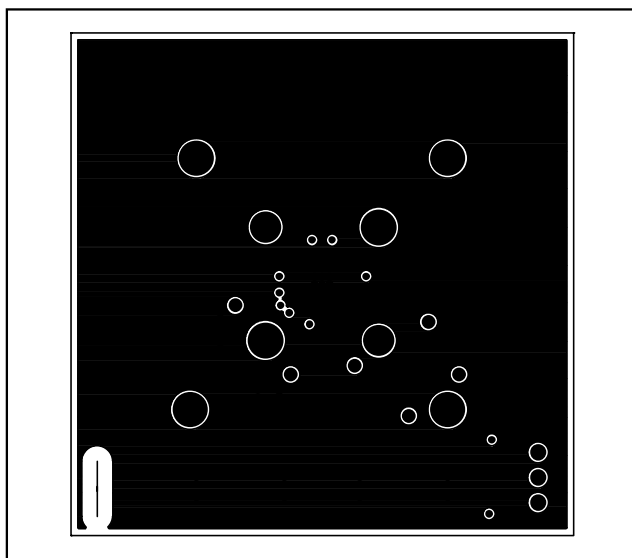


Figure 4. MAX3801 EV Kit PC Board Layout—Ground Plane

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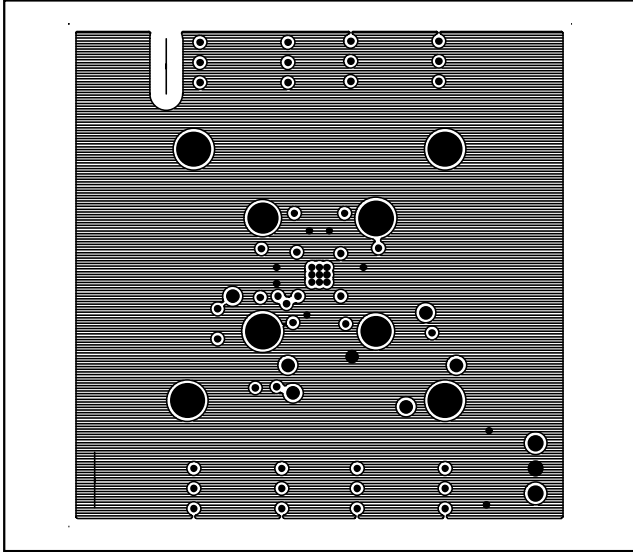


Figure 5. MAX3801 EV Kit PC Board Layout—Power Plane

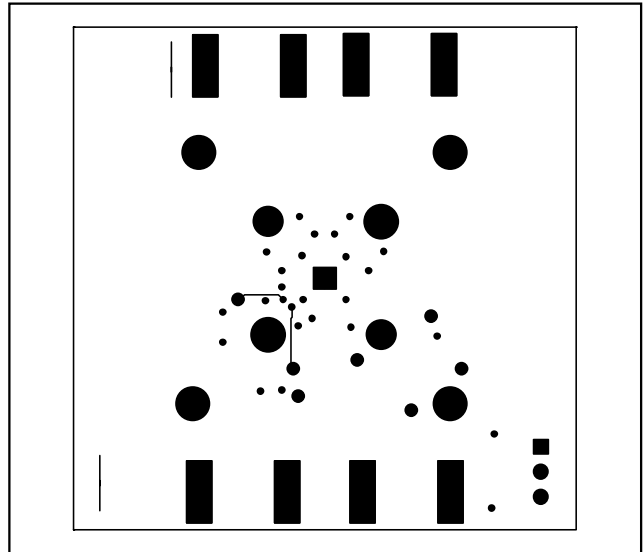


Figure 6. MAX3801 EV Kit PC Board Layout—Solder Side

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