19-0429; Rev 0; 8/95

MAXIM

MAX4121 Evaluation Kit

_____General Description

The MAX4121 evaluation kit (EV kit) is an assembled and tested board for evaluating the MAX4111 and MAX4121 crosspoint building blocks. Microstrip construction techniques are used to preserve signal integrity. The two-layer board is made from 0.062" FR4 epoxy.

_____Ordering Information

PART	TEMP. RANGE	BOARD TYPE
MAX4121EVKIT-SO	+25°C	Surface Mount

Note: *To evaluate the MAX4111 crosspoint, order a sample of the MAX4111CSA.*

_____Component List

DESIGNATION	QTY	DESCRIPTION
C1, C2	2	10µF capacitors
C3, C5	2	1000pF capacitors
C4, C6	2	0.1µF capacitors
J8, J9	2	SMA connectors
R1, R2	2	51Ω, 5% 1206 resistors
R3	1	5.1kΩ, 5% 1206 resistor
R4, R5	2	100Ω, 5% resistors
SW1	1	4-pin, 2-circuit dip switch
U1	1	MAX4121CSA
J10	1	Scope-probe jack Specialty Connectors 33JR135-1

_____Quick Start

The MAX4121 EV kit is fully assembled and tested. Follow these steps to verify board operation. **Do not turn on the power supply until all connections are completed.**

1) Connect a ±5V split supply to the board. V_{CC} = +5V, GND = common, V_{EE} = -5V.

2) Hook up input sources to the SMA input connectors. Use a 50Ω source impedance; input levels must be within ±2.5V of GND.

3) Select channels with the A0 switch and observe outputs at the OUT connector. Refer to Table 1.

4) Turn on the power supply and verify the output signal on the oscilloscope. The board should not draw more than 10mA from each supply.

5) Accurate gain-flatness measurement:

   a) Apply a signal to an input.
   b) Take the measurement with high-frequency FET probes at the pins of the IC, not at the connectors.

_____Evaluating the MAX4111

To evaluate the MAX4111, remove the MAX4121 and install a MAX4111 at U1. Put the A0 switch in the "0" position and then turn on the power. Connect the input source to IN0 (IN1 is not used). The EN switch enables and disables the output. Refer to Table 2.

Table 1. MAX4121 Switch Functions

A0	EN	OUT
0 (ON)	0 (ON)	High impedance
1 (OFF)	0 (ON)	High impedance
0 (ON)	1 (OFF)	IN0
1 (OFF)	1 (OFF)	IN1

Table 2. MAX4111 Switch Functions

A0	EN	OUT
0 (ON)	0 (ON)	High impedance
0 (ON)	1 (OFF)	IN0
1 (OFF)	0 (ON)	Undefined; do not use
1 (OFF)	1 (OFF)	Undefined; do not use

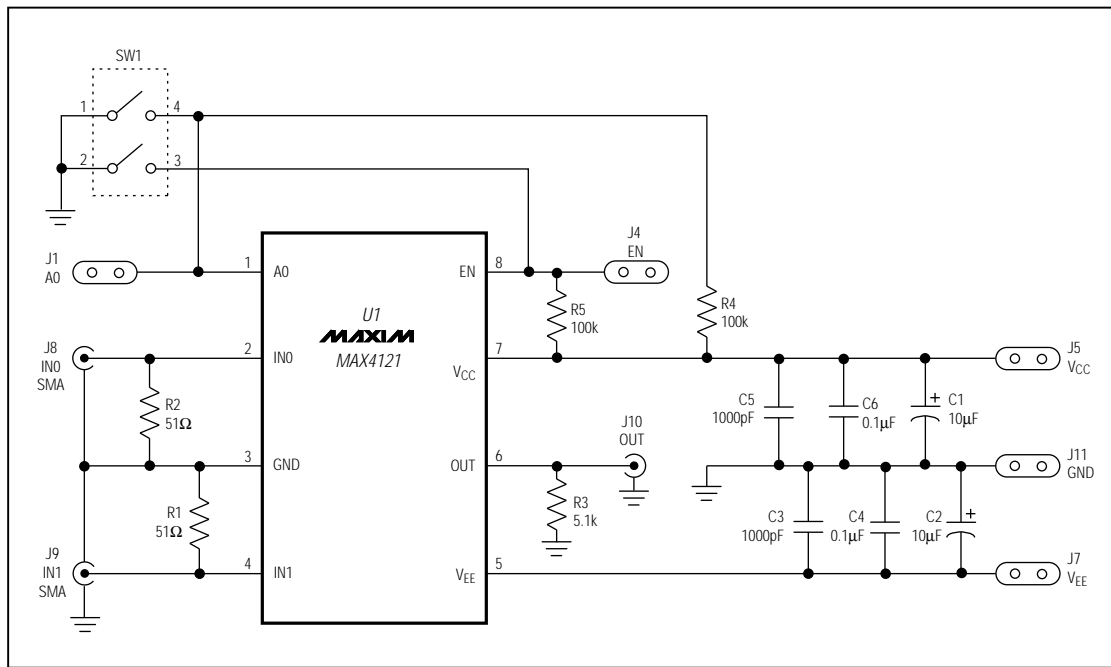***MAXIM*** _____ **Maxim Integrated Products   1**

MAX4121 Evaluation Kit

Figure 1. MAX4121 EV Kit Schematic Diagram

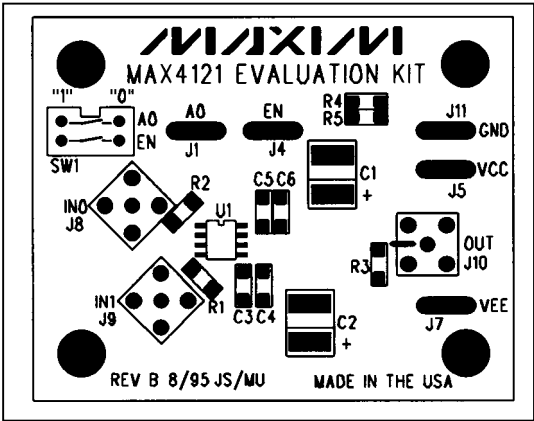**MAXIM**

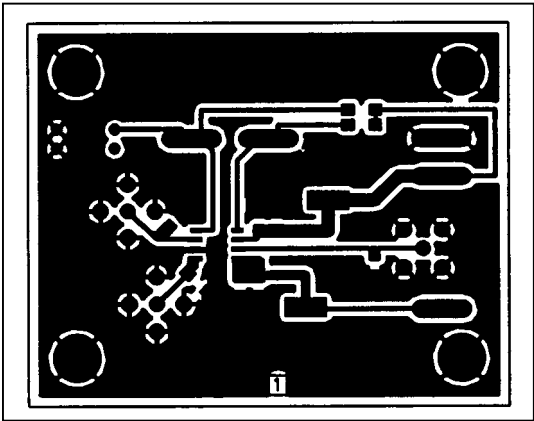# MAX4121 Evaluation Kit

Figure 2. MAX4121 EV Kit Component Placement Guide—Component Side

Figure 3. MAX4121 EV Kit PC Board Layout—Component Side

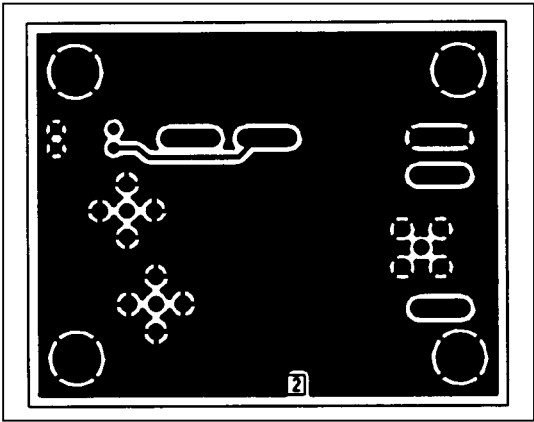Figure 4. MAX4121 EV Kit PC Board Layout—Solder Side

MAX4121 Evaluation Kit

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