

# 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	100 $\Omega$ , 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

- 1) Connect a  $\pm 5V$  split supply to the board. VCC = +5V, GND = common, VEE = -5V.
- 2) Hook up input sources to the SMA input connectors. Use a  $50\Omega$  source impedance; input levels must be within  $\pm 2.5V$  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 con-

### 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 INO (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)	INO
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

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# MAX4121 Evaluation Kit

# Evaluates: MAX4111/MAX4121

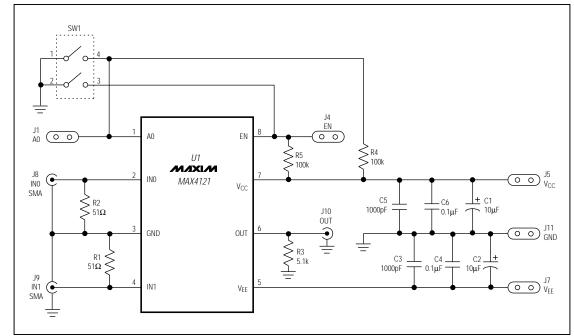


Figure 1. MAX4121 EV Kit Schematic Diagram

# MAX4121 Evaluation Kit

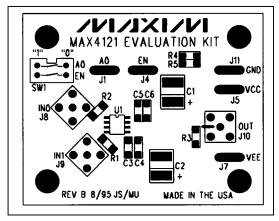


Figure 2. MAX4121 EV Kit Component Placement Guide—Component Side

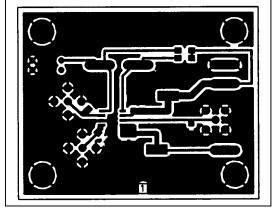


Figure 3. MAX4121 EV Kit PC Board Layout—Component Side

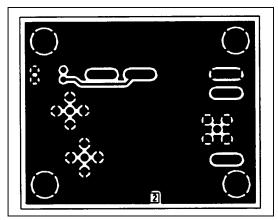


Figure 4. MAX4121 EV Kit PC Board Layout—Solder Side

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