

MAXIM

MAX498 Evaluation Kit

Evaluates: MAX498

General Description

The MAX498 evaluation kit (EV kit) simplifies evaluation of the MAX498 video switch. The evaluation board has a MAX498 in a 24-pin SO package, 12 SMA connectors, and surface-mount termination resistors.

Component List

DESIGNATION	QTY	DESCRIPTION
C1, C4	2	10 μ F, 10V, tantalum capacitors AVX TAJB106K010 or Sprague 293D106X0010B
C2, C3, C5, C6	4	0.1 μ F ceramic capacitors Vishay/Vitramon VJ1206Y102KXX
IN_A, IN_B, OUT_	12	SMA connectors
R1-R8, R13-R16	12	49.9 Ω surface-mount resistors
U1	1	MAX498CWI
SW1	1	Two-position switch
None	1	Printed circuit board
None	1	MAX498 data sheet

Component Suppliers

SUPPLIER	PHONE	FAX
AVX	(803) 946-0690 (800) 282-4975	(803) 626-3123
Sprague	(603) 224-1961	(603) 224-1430
Vishay/Vitramon	(203) 268-6261	(203) 452-5670

Features

- ◆ 250MHz Bandwidth
- ◆ 70MHz 0.1dB Gain Flatness
- ◆ 1250V/ μ s Slew Rate
- ◆ +6dB Gain
- ◆ 3ns Channel-Switching Time
- ◆ 12ns to 0.1% Settling Time
- ◆ Low Differential Phase/Gain Error: 0.06°/0.03%

Ordering Information

PART	TEMP. RANGE	BOARD TYPE
MAX498EVKIT-SO	0°C to +70°C	Surface Mount

Quick Start

The MAX498 EV kit is fully assembled and tested. Follow these steps to verify board operation. **Do not turn on the power until all connections are completed.**

- 1) Connect +5V, -5V, and ground to the pads marked VCC, VEE, and GND on the board.
- 2) Set switch SW1 to the desired output state, as shown in Table 1. For a detailed description of control-logic operation, see the *Digital Interface* section in the MAX498/MAX499 data sheet.
- 3) Connect the input video signals to the input connectors (IN0A–IN3A, IN0B–IN3B).
- 4) Connect an output to an oscilloscope through a terminated 50 Ω cable.
- 5) Turn on the power supply, logic source, and video signal; verify the output signal on the oscilloscope.

Table 1. Switching States

EN	A0	OUTPUT STATE
Low*	Low*	Channel A selected, outputs enabled
Low*	High	Channel B selected, outputs enabled
High	X	Outputs disabled

X = Don't Care

* Internal pull-downs in the MAX498 ensure a logic-low state when the switch is left open.

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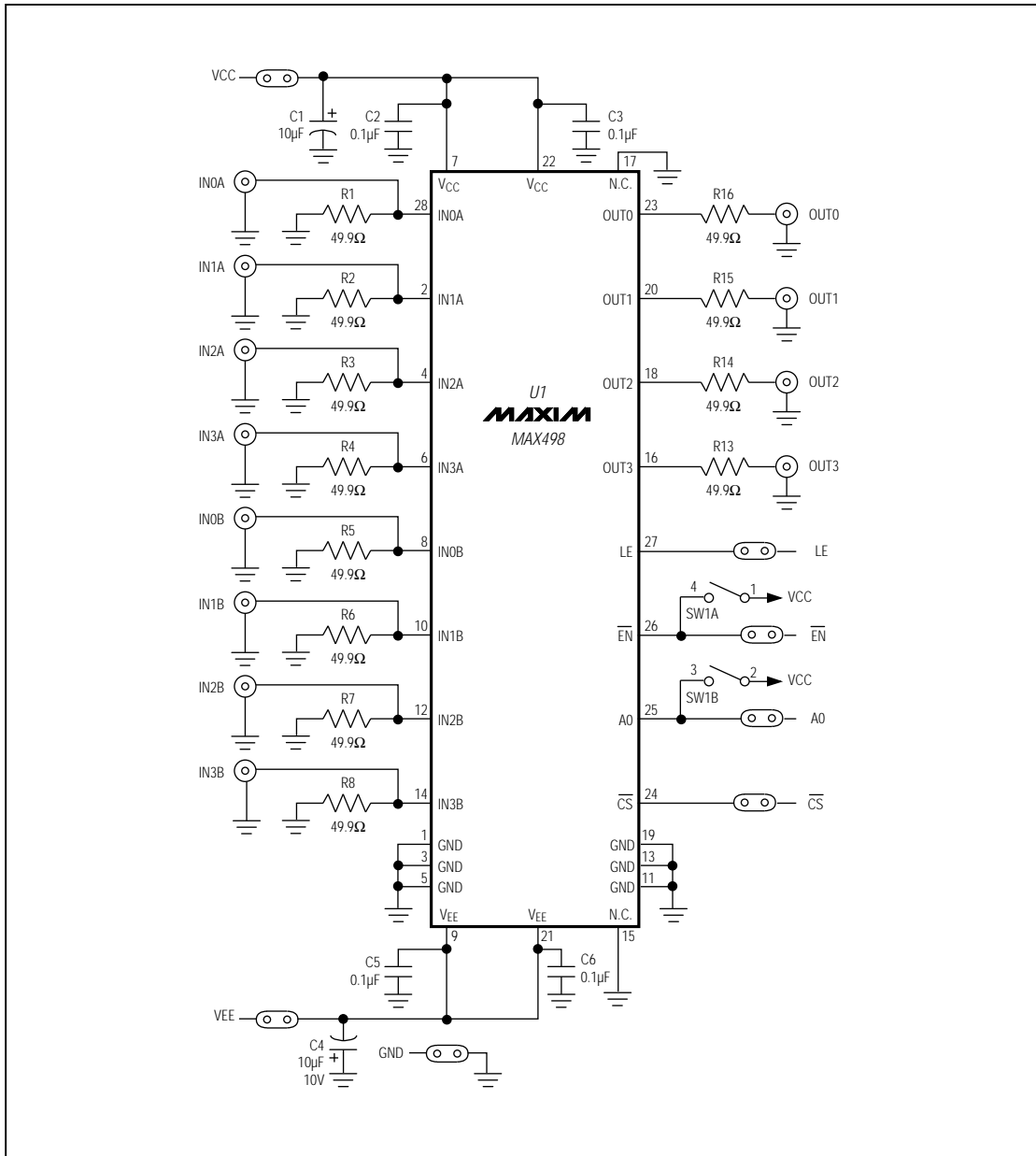


Figure 1. MAX498 EV Kit Schematic

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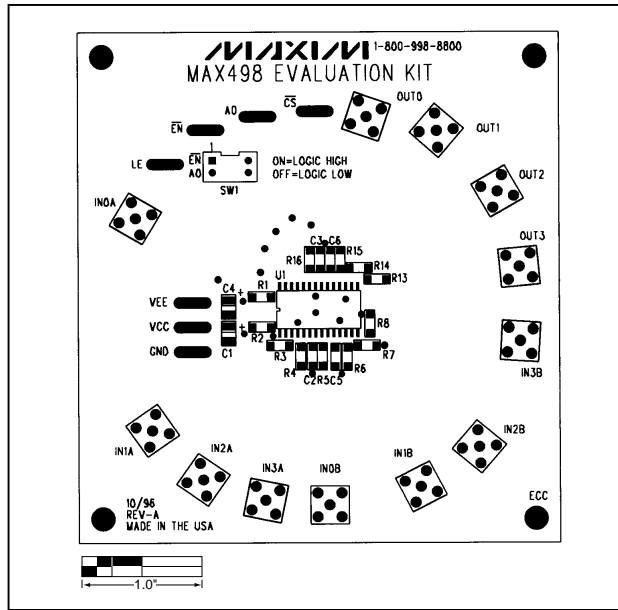


Figure 2. MAX498 EV Kit Component Placement Guide—Component Side (5/8x scale)

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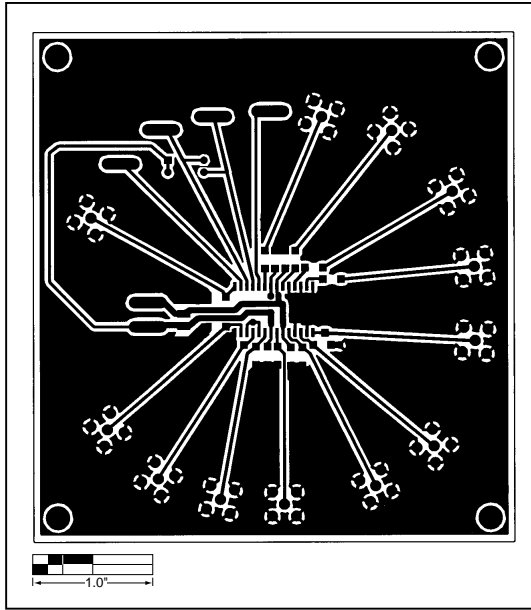


Figure 3. MAX498 EV Kit PC Board Layout—Component Side (5/8x scale)

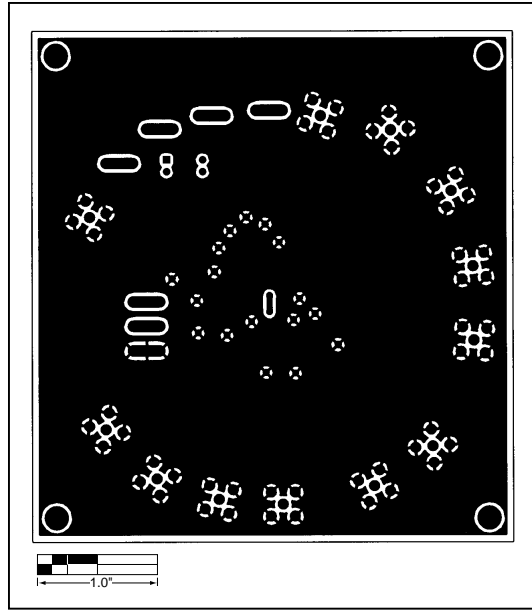


Figure 4. MAX498 EV Kit PC Board Layout—Solder Side (5/8x scale)

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