



# MAX9890 Evaluation Kit

## General Description

The MAX9890 evaluation kit (EV kit) provides a proven design to evaluate the MAX9890 stereo click-pop suppressor.

The MAX9890 EV kit printed-circuit board (PCB) comes with a MAX9890AETA+ installed (200ms switch turn-on time). To evaluate the 330ms switch turn-on time version, request a free sample of the MAX9890BETA+.

## Features

- ◆ 2.7V to 5.5V Single-Supply Operation
- ◆ 3.5mm Stereo Input and Output Jacks
- ◆ Lead-Free and RoHS-Compliant
- ◆ Proven PCB Layout
- ◆ Fully Assembled and Tested

## Ordering Information

PART	TYPE
MAX9890EVKIT+	EV Kit

+Denotes lead-free and RoHS-compliant.

## Component List

DESIGNATION	QTY	DESCRIPTION
C1	1	1 $\mu$ F $\pm$ 20%, 6.3V X5R ceramic capacitor (0603) TDK C1608X5R0J105M
C2	1	0.1 $\mu$ F $\pm$ 20%, 16V ceramic capacitor (0603) Murata GRM188R71C104K
C3, C4	2	100 $\mu$ F, 6.3V tantalum capacitors (T case) Nichicon F950J107MTAAQ2
C5, C6	0	Not installed, capacitors (T case)

DESIGNATION	QTY	DESCRIPTION
J1, J2	2	Surface-mount, 1/8in stereo headset jacks
JU1	1	3-pin header
U1	1	Audio click-pop suppressor (8 TDFN-EP*) Maxim MAX9890AETA+ (Top Mark: AHA)
—	1	Shunt
—	1	PCB: MAX9890 Evaluation Kit+

\*EP = Exposed pad.

## Component Suppliers

SUPPLIER	PHONE	WEBSITE
Murata Electronics North America, Inc.	770-436-1300	www.murata-northamerica.com
Nichicon USA	858-824-1515	www.nichicon-us.com
TDK Corp.	847-803-6100	www.component.tdk.com

**Note:** Indicate that you are using the MAX9890 when contacting these component suppliers.

Evaluates: MAX9890

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## Quick Start

### Recommended Equipment

Before beginning, the following equipment is needed:

- MAX9890 EV kit
- 5V DC power supply
- Stereo audio source
- Single-ended stereo headphone amplifier
- Stereo headphones

### Procedure

The MAX9890 is fully assembled and tested. Follow the steps below to verify board operation:

- 1) Verify that jumper JU1 is in its default position, as shown in Table 1.
- 2) Connect headphones to J2.
- 3) Connect headphone amplifier output to J1.
- 4) Connect audio source to single-ended stereo headphone amplifier.

- 5) Connect power supply between VCC and GND.
- 6) Enable audio source.
- 7) Enable headphone amplifier.
- 8) Verify that audio is passed to headphones without any audible clicks or pops.

## Detailed Description of Hardware

The MAX9890 EV kit provides a proven layout for the MAX9890.

**Table 1. MAX9890 EV Kit Jumper Descriptions**

JUMPER	SHUNT POSITION	DESCRIPTION
JU1	1-2*	$\overline{\text{SHDN}} = \text{VCC}$ , normal operation
	2-3	$\overline{\text{SHDN}} = \text{GND}$ , shutdown mode

\*Default position.

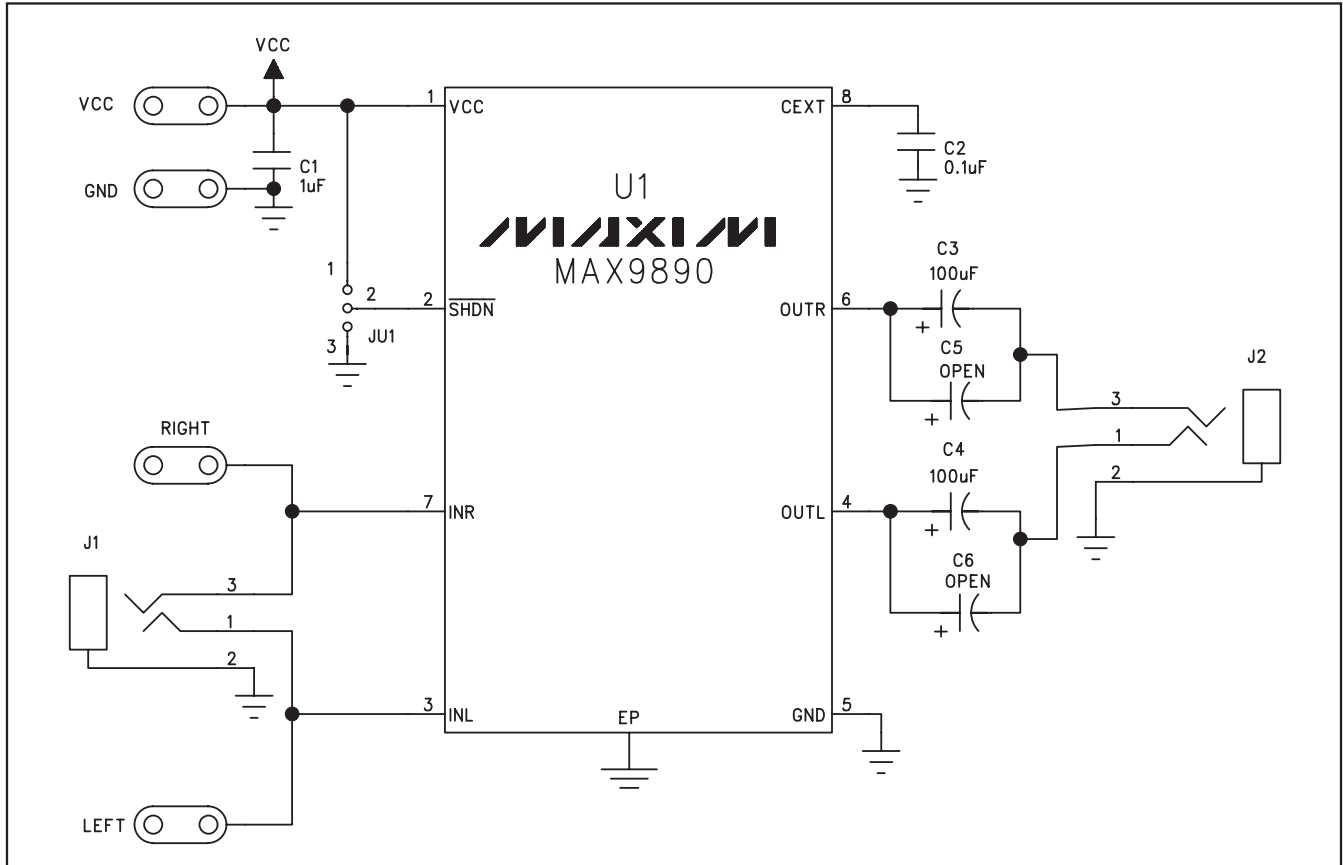


Figure 1. MAX9890 EV Kit Schematic

# MAX9890 Evaluation Kit

Evaluates: MAX9890

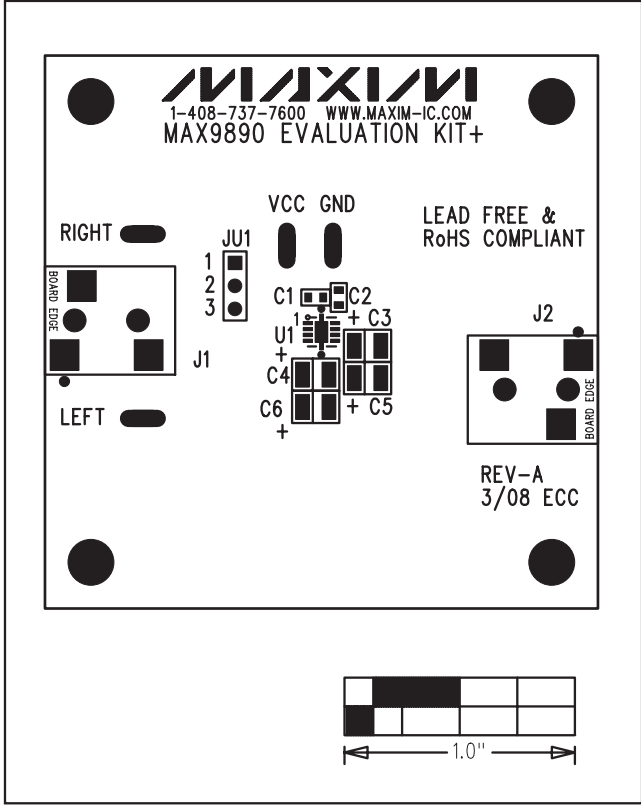


Figure 2. MAX9890 EV Kit Component Placement Guide—Component Side

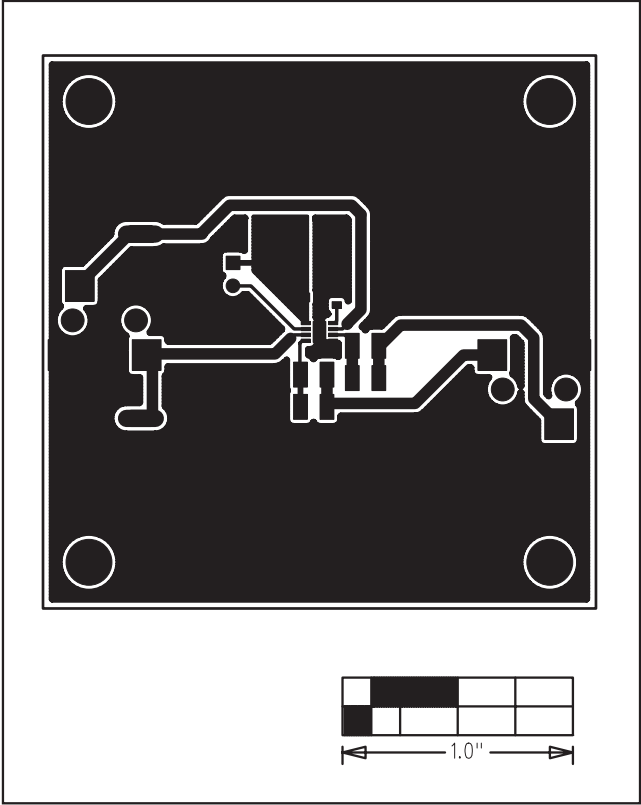


Figure 3. MAX9890 EV Kit PCB Layout—Component Side

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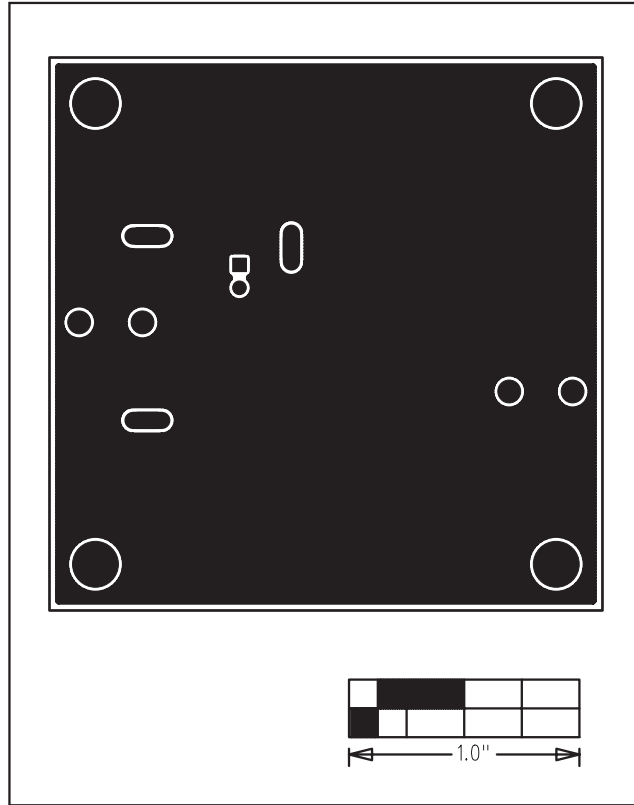


Figure 4. MAX9890 EV Kit PCB Layout—Solder Side

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