19-4095; Rev 0; 4/08

MAX9890 Evaluation Kit

Evaluates: MAX9890

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	1µF ±20%, 6.3V X5R ceramic capacitor (0603) TDK C1608X5R0J105M
C2	1	0.1µF ±20%, 16V ceramic capacitor (0603) Murata GRM188R71C104K
C3, C4	2	100µF, 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.*

For pricing, delivery, and ordering information, please contact Maxim Direct at 1-888-629-4642, or visit Maxim's website at www.maxim-ic.com.

MAX9890 Evaluation Kit

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*	$\overline{SHDN}$ = VCC, normal operation
	2-3	$\overline{SHDN}$ = GND, shutdown mode

**Default position.*

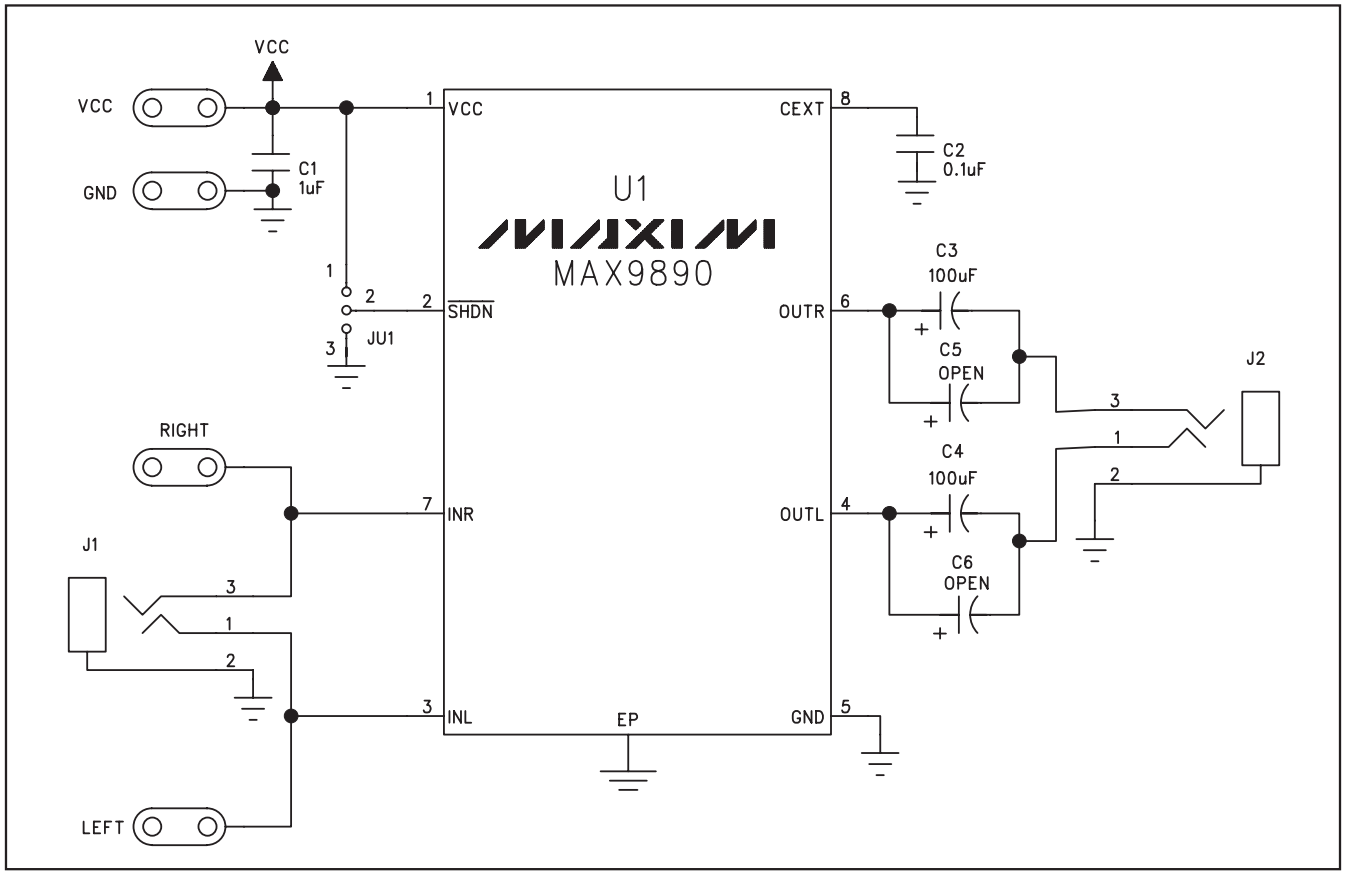


Figure 1. MAX9890 EV Kit Schematic

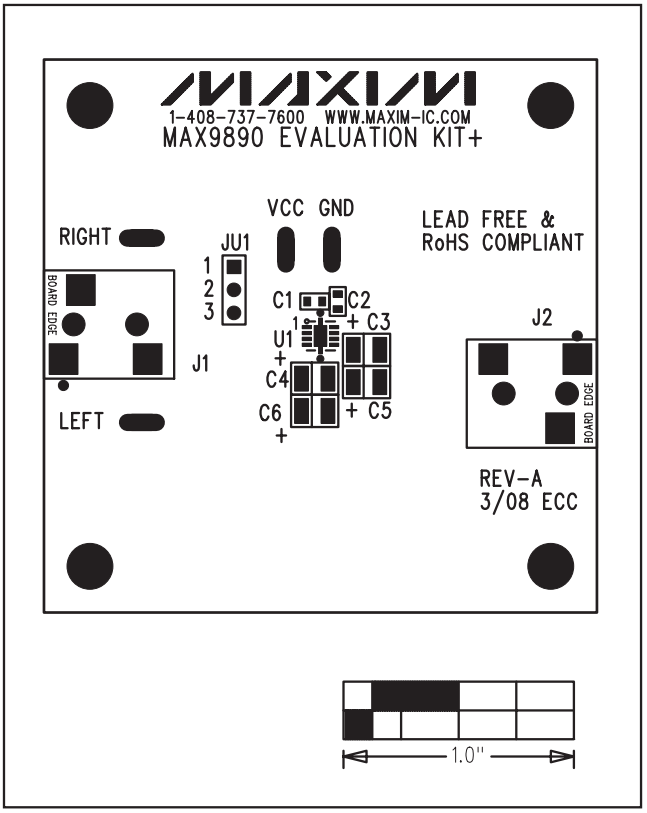


Figure 2. MAX9890 EV Kit Component Placement Guide—Component Side

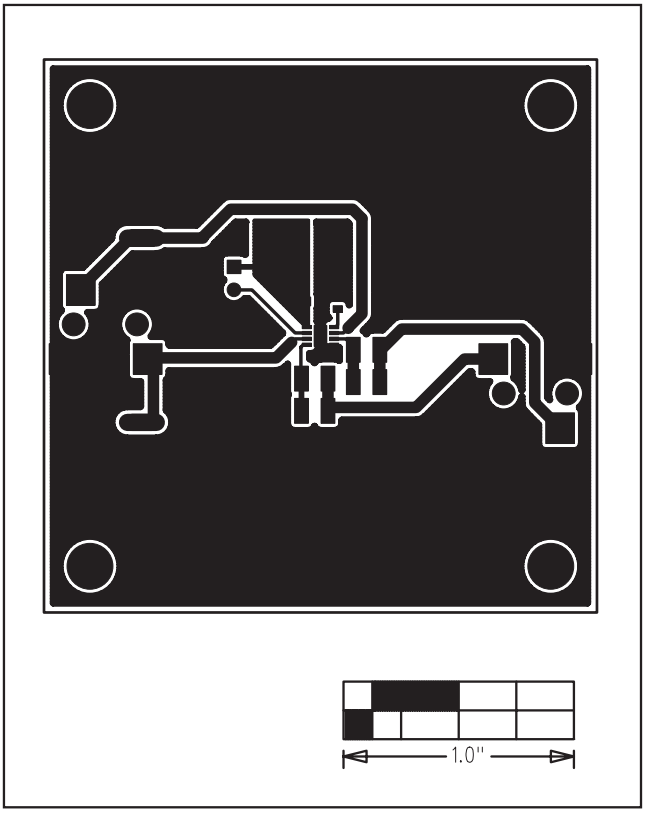


Figure 3. MAX9890 EV Kit PCB Layout—Component Side

MAX9890 Evaluation Kit

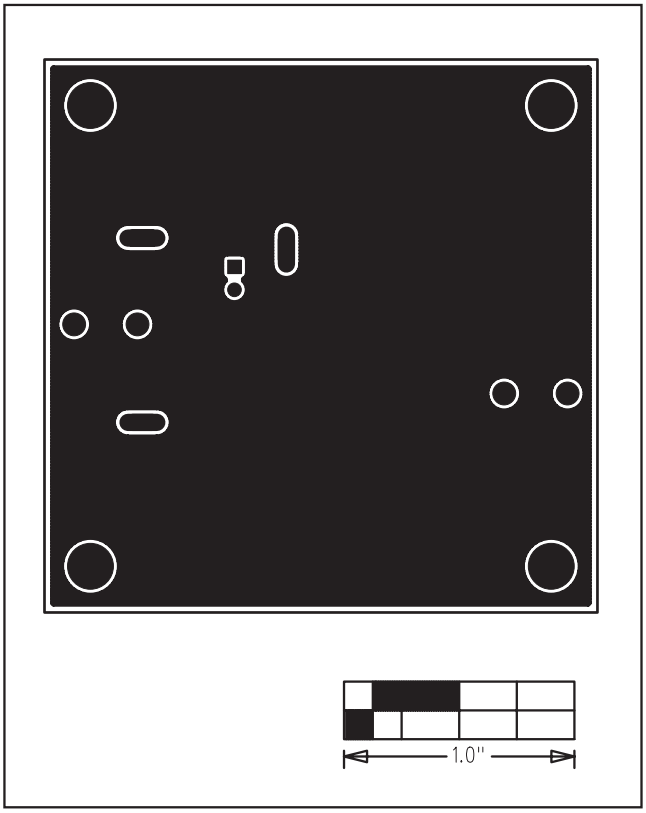


Figure 4. MAX9890 EV Kit PCB Layout—Solder Side

Maxim cannot assume responsibility for use of any circuitry other than circuitry entirely embodied in a Maxim product. No circuit patent licenses are implied. Maxim reserves the right to change the circuitry and specifications without notice at any time.

© 2008 Maxim Integrated Products MAXIM is a registered trademark of Maxim Integrated Products, Inc.