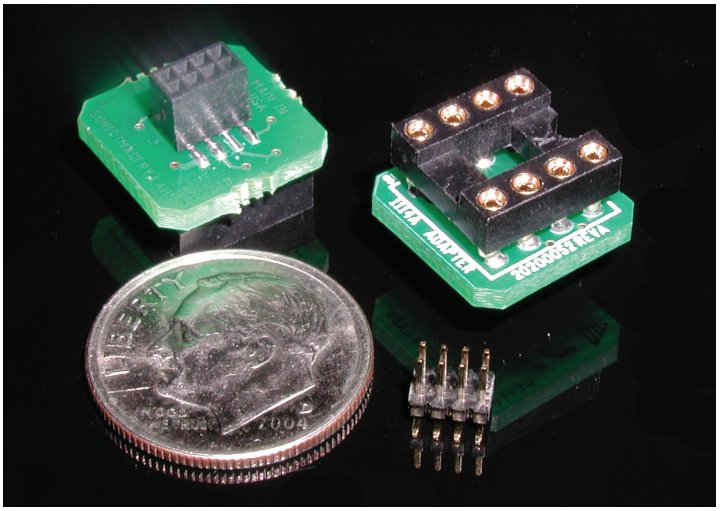
Sonic Imagery Labs Model 1114A 8-Pin DIP to SOIC Adapter

Convenient, cost-effective means of converting DIP-style packaging to SOIC PC board layouts. The Sonic Imagery Labs Model 1114A allows the user to adapt or mount DIP8 or dual inline 8 pin devices to SOIC8 SMT footprints. The Model 1114A adapter is available either fully assembled or as a user solderable kit form. With the installation of 8 gold pinsaver pins, the kit form of the 1114A adapter can be reversed and the user can mount/solder SOIC8 SMT devices to existing DIP8 or DIL8 device footprints.

When removing the SMT device from the PCB to be upgraded be sure to take careful note of the PIN 1 location. Be sure to install and orientate the Sonic Imagery Labs Model 1114A with its PIN 1 location is the same manner.

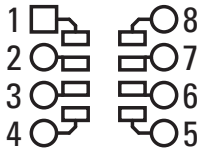


DETAIL A. (Above) The Sonic Imagery Labs Model 1114A shown fully assembled. See page 3 for unassembled kit form.

Features:

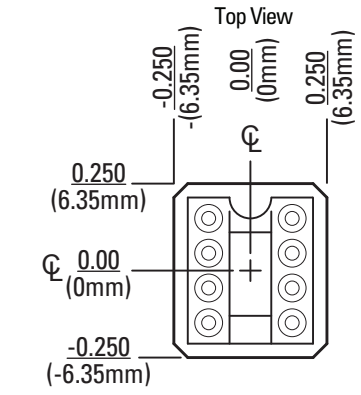
- Adapters will allow the use of a newer or more readily available component package type - avoiding costly redesign or requalifying of the existing PCB.
- Adapts SO8 surface mount IC to 8-pin DIP footprint.
- Kit version can be assembled to adapt 8-pin DIP footprint to SO8 surface mount IC (Reverse Direction).
- Gold plated 0.500" x 0.500" x 0.062" adapter board, FR-4 laminate
- Pinned out as 1 for 1 connections, straight thru, allowing the use of single and dual opamp evaluation or adaptation.

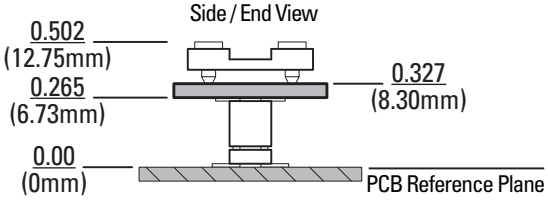
Electrical:



One for One Straight Thru Connections

Mechanical:





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8-Pin DIP to SOIC Adapter

Specifications:

SOCKET ACCEPTS LEADS:	0.015-0.025 [0.38-0.64mm] in diameter, 0.100-0.125 [2.54-3.18mm] long
INSERTION FORCE:	180g/pin; based on a 0.018 [0.46mm] diameter test lead
WITHDRAWAL FORCE:	90g/pin; based on a 0.018 [0.46mm] diameter test lead
NORMAL FORCE:	140g/pin; based on a 0.018 [0.46mm] diameter test lead
SOCKET BODY:	black, UL 94V-0 glass-filled 4/6 Nylon 170°C continuous use temp
PCB:	FR-4, 0.062 [1.58mm] thick, 10µ [0.254µ] Au per MIL-G-45204 100µ [2.54µ] Ni per SAE AMS-QQ-N-290B
MALE ADAPTER PIN:	Brass 360 1/2-hard per UNS C36000, ASTM B16/B16M
MALE PIN PLATING:	200µ [5.08µm] Sn/Pb 93/7 per ASTM B579-73 over 100µ [2.54µm] Ni per SAE AMS-QQ-N-290B
FEMALE CONTACT PIN:	Brass 360 1/2-hard per UNS C36000, ASTM B16/ B16M
FEMALE PIN PLATING:	10µ [0.254µ] Au per MIL-G-45204 over 100µ [2.54µ] Ni per SAE AMS-QQ-N-290B
4-FINGER COLLET CONTACT:	BeCu per UNS C17200, ASTM B194-08
FEMALE CONTACT PLATING:	10µ [0.254µ] Au per MIL-G-45204 over 50µ [1.27µ] Ni per SAE AMS-QQ-N- 290
CONTACT CURRENT RATING:	3 amps
OPERATING TEMPERATURE:	221°F [105°C]

Installation Procedure:

Installation assumes the user is trained and competant in the art and has the skills to desolder and solder surface mount devices and PCB level repair and upgrade. Take note of the device to be upgraded/adapted PIN1 location.

STEP 1. Remove the SMT device and install the provided 0.050 2x4 pin header to the existing PCB pads as shown in **FIGURE 1**.

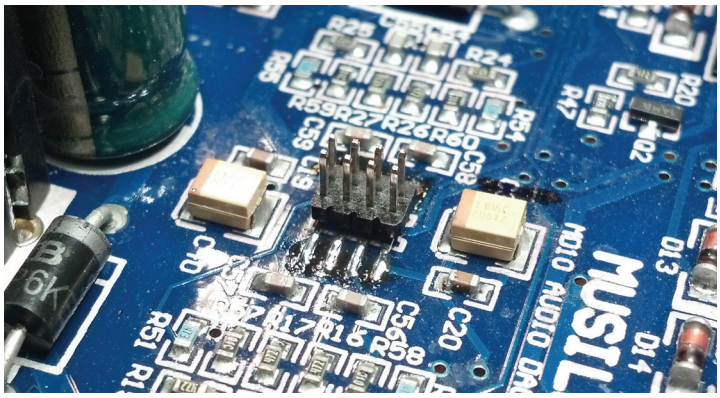

FIGURE 1. (Above) 0.050 2x4 pin header soldered to the existing PCB pads.

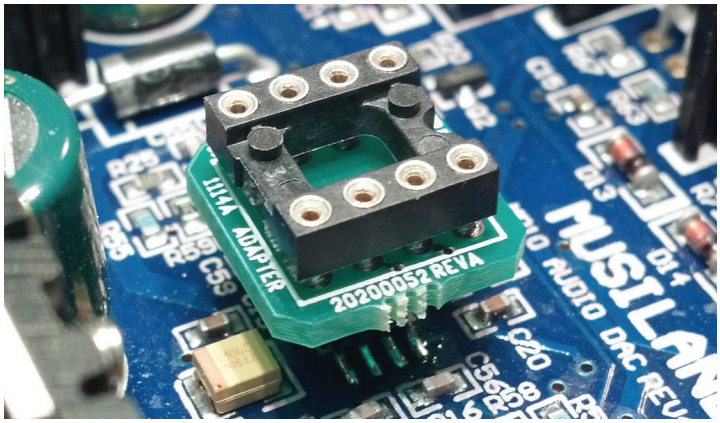

FIGURE 2. (Above) The Sonic Imagery Labs Model 1114A installed onto 0.050 2x4 pin header soldered to the existing PCB pads.

STEP 2. Install the Sonic Imagery Labs Model 1114A onto 0.050 2x4 pin header installed in **STEP 1.** If the user will be installing a DIP8 monolithic IC, it is sometimes easier to install this IC into the socket of the Model 1114A Adapter before attaching the adapter to the pin header.

Be sure to install and orientate the Sonic Imagery Labs Model 1114A with its PIN 1 location is the same manner as the device previously removed.

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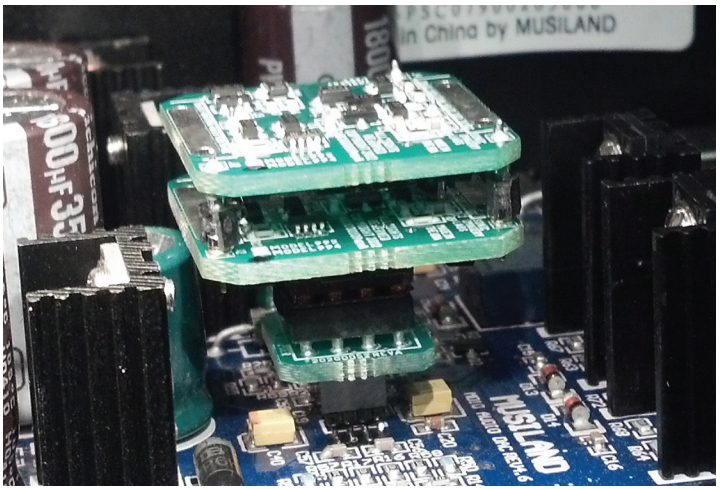
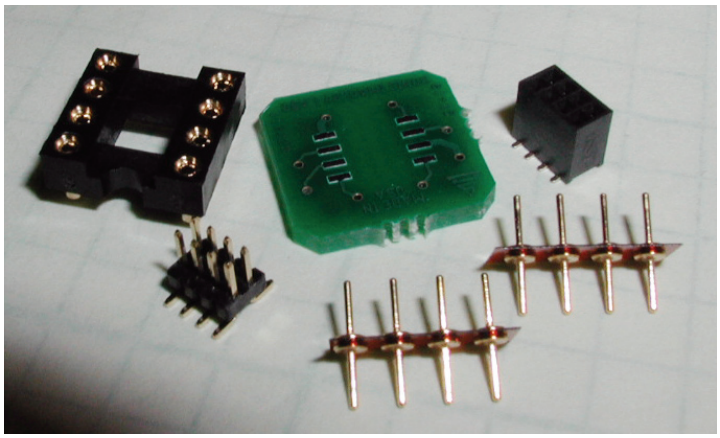


FIGURE 3. (Above) A Sonic Imagery Labs 994Enh-Ticha opamp installed onto the Sonic Imagery Labs Model 1114A installed onto 0.050 2x4 pin header soldered to the existing PCB pads.

Attention should be given to upgrades or adaptations which may be subject to strong shocks or lateral forces and movement. As shown in FIGURE 3. the stacking of devices can become tall. This will place stress on the supporting PCB and its solder pads if subject to physical shock or sudden movement. In the case shown, the 994Enh-Ticha was attached to several components with hot-glue. This prevented sudden movement from damaging the attaching PCB and solder pads at the base of the adapter. As every application is different, the user should examine the installation carefully and take measures to support the adapter stack.



DETAIL B. (Above) The Sonic Imagery Labs Model 1114A as unassembled kit form. Can be assembled to adapt SOIC8 to DIP8. This is the reverse adaption of the assembled model.

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