**Model 990Enh-Ticha & 995FET-Ticha Opamp Module Mechanicals**

Sonic Imagery Labs manufactures pin length variants of their standard product to OEMs and commercial pro audio design groups as well as the DIY vintage and retro-clone gear upgrade market.

It is highly recommended that the user not solder the pins of the Sonic Imagery Labs Modules directly to the mating printed circuit board. Overheating the Model 990Enh-Ticha and 995FET-Ticha pins can create a cold solder joint at the other end, internal to the module. Permanent soldering of the pin also prevents easy removal of the module. Lastly, soldering prevents one from servicing components which may lie underneath the module.

Refering to the following mechanical diagrams, the user has additional height options if it is required to mount the Model 990Enh-Ticha and 995FET-Ticha over tall components. If the user is upgrading or replacing vintage or retro-clone gear take note of the pin length required for your particular application.

Refer to the following pages of this application note for mechanicals of the Sonic Imagery Labs Model 990Enh-Ticha and 995FET-Ticha opamp modules and its variant purchase options available.

**FIGURE 1.** (Above) Pin placement and module size of the Sonic Imagery Labs Model 990Enh-Ticha and 995FET-Ticha opamp module.

**FIGURE 2.** (Above) Standard pin length of the Sonic Imagery Labs Model 990Enh-Ticha and 995FET-Ticha opamp module.

For new applications and in keeping with the advent of surface mount components, shorter pins are preferred for new designs. This helps to reduce parasitics, reduces “pickup noise” as well as keep feedback loop traces short.

If the user is upgrading or replacing vintage or retro-clone gear take note of the pin length required for your particular application. Older gear typically used modules with 0.480 to 0.510 inch long 0.040 pins. Sonic Imagery Labs offers this variant at no additional charge. See **FIGURE 3** below for mechanical details.

**FIGURE 3.** (Above) Mechanical specifications of the Vintage or retro-clone pin length variant of the Sonic Imagery Labs Model 990Enh-Ticha and 995FET-Ticha opamp module. Sonic Imagery Labs offers this variant at no additional charge. Contact Sonic Imagery Labs directly before ordering.
Model 990Enh-Ticha & 995FET-Ticha Opamp Module Mechanicals

Refering to the following mechanical diagrams, the user has additional height options if it is required to mount the Model 990Enh-Ticha and 995FET-Ticha over tall components. The use of pin sockets is the prefered mounting method. These sockets are commonly available through electronic component distributors. Many types of sockets for 0.040” diameter pins are available from several manufacturers. Sonic Imagery Labs uses and stocks the sockets from Mill-Max. The mechanical specifications shown here is using Mill-Max pin socket Part Number 0344-2-19-15-34-27-10-0.


DETAIL B. (Above) Vintage or retro gear upgrade pin length variant height specifications and mounting options for Sonic Imagery Labs Model 990Enh-Ticha and 995FET-Ticha opamp module.
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Opamp Module Mechanicals

Pin Socket Mechanical:

Mill-Max
190 Pine Hollow Road,
PO Box 300
Oyster Bay NY 11771

Part Number 0344-2-19-15-34-27-10-0

Concord Electronics Corp
Part Number 09-9035-2-03
33-00 47th Ave
Level 1A
Long Island City, NY 11101

Wearnes Cambion Ltd
Peverial House
Mill Bridge, Castleton
Hope Valley S33 8WR
United Kingdom

Part Number 450-3756-02-03

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