Instruction Manual

For

905110 PGA Breakout Adapter Board
905120 PLCC Breakout Adapter Board
905130 PLCC 68 Breakout Adapter Board
905135 PLCC 84 Breakout Adapter Board
905140 PQFP 208 Breakout Adapter Kit

Diversified Engineering
Expanding Your Engineering Options

283 Indian River Road
Orange, CT 06477
Tel 203-799-7875 Fax 203-799-7892
www.diversifiedengineering.net

1 Overview

The *Adapter Boards* covered under this document can be used as a stand alone module or as a drop in module that fit into the Diversified Engineering ***Design Center***. Each module occupies one of the two adapter module spaces on the ***Design Center.***

2 Electrical Considerations

The boards are designed to allow users to create permanent custom circuits or to assist in interfacing to high density Integrated Circuits (IC). Printed Circuit Board (PCB) traces are sized for normal electronic signals. In no case should voltages in excess of 24V or currents greater than 50 ma applied.

******WARNING******

Damage to the terminal block/intermittent connection will occur if the incorrect size wire is used.

Wire and/or electronic components used to construct the circuitry wired into the connecting terminal block should have lead diameters of .01 to .033 inches (.25 -.84MM). Typically #22 gauge solid wires are used.

3 Mechanical Considerations

The bottom side of the adapter boards has exposed PCB traces and can become damaged if they are scraped or mechanically abused. Use caution when handling. If the board is used as a stand-alone module and powered up, place the board on stand-off's or on a non-conducting surface.

4 IC Installation/Removal

When installing IC's on boards that have sockets, the boards should be placed on a flat surface prior to inserting the IC. The IC should be comfortably set into the socket with special attention that it is keyed properly. Constant pressure should be used to press in the IC. Never apply excess force or try to insert the IC while it is jarred. This can damage the socket, IC or both.

When removing the IC's, be sure to place the board on a flat surface and use only the appropriate IC tool for extraction.

*****WARNING******

Always be sure power is off prior to installing or removing any IC.

5 905110 PGA Breakout Adapter Board

This simple board is used for the semi permanent construction of custom soldered circuits. It is perforated with plated .040" holes drilled on .1" by .1" centers. The four corner holes allow it to be mounted into either of the two adapter cradle locations on the ***Design Center*** or independently onto stand-offs.

6 905120 PLCC Breakout Adapter Board

This board allows any 10, 28, 32 or 44 pin PLCC packaged IC to be inserted into the four sockets. Each IC socket is wired to the matching connecting terminal block and is marked with the pin number. Wires or electronic components can be easily connected to the IC for testing. The four corner holes allow it to be mounted into any one of the two adapter cradle locations on the ***Design Center*** or independently onto stand-offs.

7 905130 PLCC 68 Breakout Adapter Board

This board allows any 68 pin PLCC packaged IC to be inserted into the socket. The IC socket is wired to the matching connecting terminal block and is marked with the pin number. Wires or electronic components can be easily connected to the IC for testing. The four corner holes allow it to be mounted into any one of the two adapter cradle locations on the ***Design Center*** or independently onto stand-offs.

8 905135 PLCC 84 Breakout Adapter Board

This board allows any 84 pin PLCC packaged IC to be inserted into the socket. The IC socket is wired to the matching connecting terminal block and is marked with the pin number. Wires or electronic components can be easily connected to the IC for testing. The four corner holes allow it to be mounted into any one of the two adapter cradle locations on the ***Design Center*** or independently on to stand-offs.

9 905140 PQFP 208 Breakout Adapter Board Kit

This kit includes a PCB board and four connecting terminal blocks. It is designed to break out all the pins of a 208 pin IC for easy interface. Given the high density and small size of the package, an expert or professional PCB Assembly Company is needed to mount both the IC and connecting terminal block. Once soldered in place, wires or electronic components can be easily connected to the IC for testing. The four corner holes allow it to be mounted into any one of the two adapter cradle locations on the ***Design Center*** or independently on to stand-offs.

Limited Warranty

Diversified Engineering and Manufacturing Inc. (DEM) warrants that the Product(s) are free from defects in material and workmanship for a period of one (1) year from the date of purchase. Diversified Engineering & Manufacturing Inc. will, at its discretion, repair or replace any part(s) found to be defective in the product(s) resulting from defective workmanship, material or both. All costs for packaging and transporting *to and from* Milford CT are the responsibility of the customer. All units returned for repair must include prepaid shipping charges, proof of purchase receipt and detail of the problem/symptom.

There is no other warranty expressed or implied. This warranty does not apply to any defect, failure or damage caused by improper use or storage of the product. DEM is not obliged to provide warranty service for units that: 1) are damaged from improper use or interconnection to external equipment; 2) that have been modified or tampered with; or 3) improperly stored or exposed to elements.

Customer Service

Technical support and service is available from 9:00 AM to 4:30 PM, M-F, EST.
(203) 799-7875
(203) 799-7892 Fax
All materials being sent to DEM should be addressed to:
Diversified Engineering and Manufacturing Inc.
283 Indian River Rd.
Orange, CT 06477

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