Sensoray Model 328
PCI to PC/104-Plus Adapter

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# TABLE OF CONTENTS

- **LIMITED WARRANTY**                                                                                                                                                                                                                         5
- **SPECIAL HANDLING INSTRUCTIONS**                                                                                                                                                                                                            5
- **1. INTRODUCTION**                                                                                                                                                                                                                           6
- **2. SPECIFICATIONS**                                                                                                                                                                                                                          6
- **3. INSTALLATION**                                                                                                                                                                                                                           6
  - **3.1. INSTALLATION**                                                                                                                                                                                                                         6
  - **3.2. CONFIGURATION**                                                                                                                                                                                                                       6
- **4. TECHNICAL SUPPORT**                                                                                                                                                                                                                      6
Limited Warranty

Sensoray Company, Incorporated (Sensoray) warrants the Model 328 hardware to be free from defects in material and workmanship and perform to applicable published Sensoray specifications for two years from the date of shipment to purchaser. Sensoray will, at its option, repair or replace equipment that proves to be defective during the warranty period. This warranty includes parts and labor.

The warranty provided herein does not cover equipment subjected to abuse, misuse, accident, alteration, neglect, or unauthorized repair or installation. Sensoray shall have the right of final determination as to the existence and cause of defect.

As for items repaired or replaced under warranty, the warranty shall continue in effect for the remainder of the original warranty period, or for ninety days following date of shipment by Sensoray of the repaired or replaced part, whichever period is longer.

A Return Material Authorization (RMA) number must be obtained from the factory and clearly marked on the outside of the package before any equipment will be accepted for warranty work. Sensoray will pay the shipping costs of returning to the owner parts that are covered by warranty.

Sensoray believes that the information in this manual is accurate. The document has been carefully reviewed for technical accuracy. In the event that technical or typographical errors exist, Sensoray reserves the right to make changes to subsequent editions of this document without prior notice to holders of this edition. The reader should consult Sensoray if errors are suspected. In no event shall Sensoray be liable for any damages arising out of or related to this document or the information contained in it.

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Special Handling Instructions

The Model 328 circuit board is sensitive to Electrostatic Discharge (ESD).

Special care should be taken in handling, transporting, and installing the 328 to prevent ESD damage to the board. In particular:

- Do not remove the circuit board from its protective anti-static bag until you are ready to install the board into the enclosure.

- Handle the circuit board only at grounded, ESD protected stations.

- Remove power from the PCI bus before installing or removing the circuit board.
1. Introduction

Sensoray’s Model 328 PCI to PC104-Plus Adapter allows testing PCI boards using the PC104-Plus bus system. PCI board can be placed in the system outside of the PC104-plus stack, perpendicular to the board. This position allows more PC104-plus modules to be stacked on the top. The PCI slot can be configured as slot 1, 2, 3 or 4, using removable jumper plugs.

2. Specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus</td>
<td>PC104-Plus to 32-bit PCI</td>
</tr>
<tr>
<td>Slot configuration</td>
<td>Slot 1 to 4, jumper plugs</td>
</tr>
<tr>
<td>PCI board mounting</td>
<td>Standard 32-bit PCI Connector</td>
</tr>
<tr>
<td>Dimensions</td>
<td>5 x 3-5/8 inches</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>-40°C to +85°C</td>
</tr>
</tbody>
</table>

3. Installation

3.1. Installation

Power down the PC104-Plus system. Plug the Model 328 adapter into a PC104-plus slot. Configure adapter for slot 1 to 4 (follow instructions). Plug in the board under test into the 328 adapter. Power up the PC104-Plus system.

3.2. Configuration

Each module in PC104-Plus system shall be properly configured to prevent conflicts. The following table shows the appropriate jumper setting and signals used for each module in the stack.

Example: For Slot 1 install jumpers IDSEL0, REQ0, GNT0, CLK0, INTA only,
         For Slot 2 install jumpers IDSEL1, REQ1, GNT1, CLK1, INTB only.

<table>
<thead>
<tr>
<th>MODULE SLOT</th>
<th>SELECTION JUMPERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>IDSEL0, REQ0, GNT0, CLK0, INTA</td>
</tr>
<tr>
<td>2</td>
<td>IDSEL1, REQ1, GNT1, CLK1, INTB</td>
</tr>
<tr>
<td>3</td>
<td>IDSEL2, REQ2*, GNT2*, CLK2, INTC</td>
</tr>
<tr>
<td>4</td>
<td>IDSEL3, REQ2*, GNT2*, CLK3, INTD</td>
</tr>
</tbody>
</table>

* NOTE1: Because module slot 3 and 4 share REQ2/GNT2, they cannot both be master devices.

4. Technical Support

For technical support contact Sensoray Company, Inc.
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