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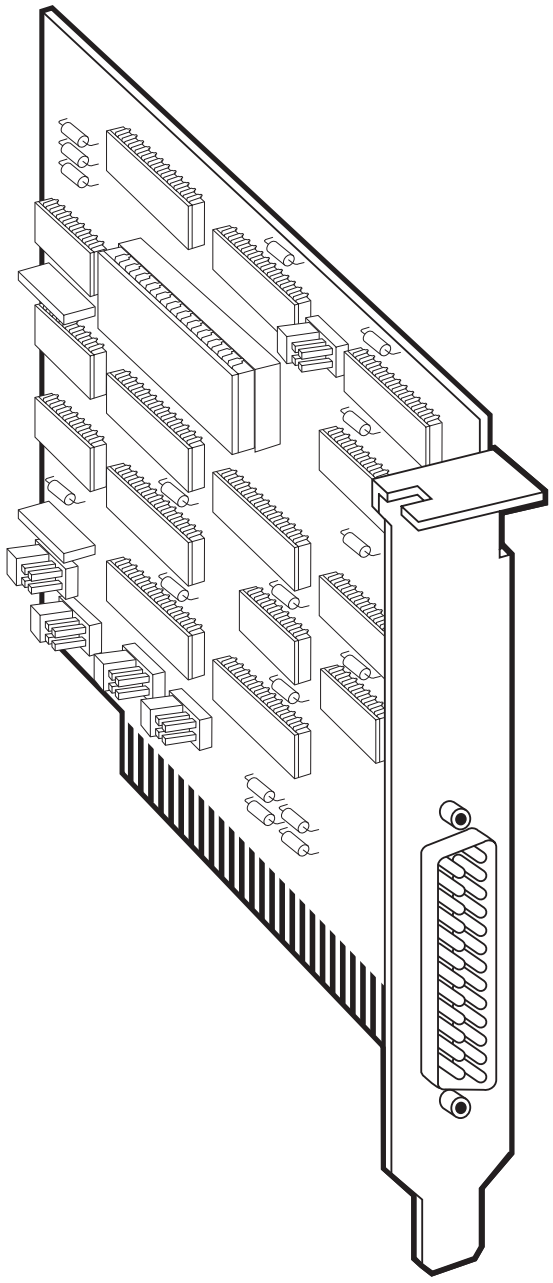
NETWORK SERVICES

SEPTEMBER 1994
PCD61C

MPA 3270 Emulation Board (Remote)



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Contents

Section Page

1. Specifications 3

2. Introduction 4
   2.1 What to Do First 4
   2.2 About This Manual 4
   2.3 Compatibility With Other Products 4

3. Installation 5

4. How to Modify the MPA 3270 Emulation Board (Remote) 6
   4.1 MPA Board Settings 6
   4.2 Changing the I/O Address 7
   4.3 Changing the Hardware Interrupt Level 9

Appendix: Default Board Settings 10

1. Specifications

Systems Supported — SDLC

PU Type Emulated — 2

LU Types Supported — 1 and/or 3 and 2

System Requirements — 386, 486, or Pentium PC or PS/2® Model 30, (1) 3.5" floppy drive, PC or MS-DOS® 3.3 or later

Interface — RS-232 DTE (external clocking only)

Connector — (1) DB25 male

Power — +5 VDC, 1.5 A from PC bus

Size — 4"W x 5"D (10.2 x 12.7 cm) half card

Weight — 2 lb. (0.9 kg)

2. Introduction

The MPA 3270 Emulation Board (Remote) is a printed circuit board that provides the communications interface between the host and your personal computer.

Software (ordered separately) that works with the Board features DOS and Windows™ emulation.

2.1 What to Do First

Check to make sure that your package includes the following items:

- MPA 3270 Emulation Board (Remote)
- This User's Manual

2.2 About This Manual

This manual provides complete instructions for installing your MPA 3270 Emulation Board (Remote). If you have purchased additional software (such as DOS (PCD62) or Windows (PCD63) emulation soft- ware), or if you plan to use another vendor's software with the Board, refer to the documentation that came with the software for instructions.

We recommend that you thoroughly read this guide before configuring or using your emulation product.

This manual does not discuss your PC or its disk operating system (DOS), your LAN, or specific host application programs. If you are not familiar with your PC, DOS, or your LAN, we recommend that you review their documentation.

This manual contains four chapters and one appendix:

- **Chapter 1, Specifications,** lists pertinent specifications for the card.
- **Chapter 2, Introduction**, provides basic information about the Board and its features.
- **Chapter 3, Installation**, describes in detail how to install the Board.
- **Chapter 4, How to Modify the MPA 3270 Emulation Board (Remote)**, describes how to change jumpers and I/O addresses for the Board.
- **Appendix, Default Board Settings**, lists the settings for the Board as shipped from the factory.

2.3 Compatibility with Other Products

There are two situations in which your emulation software will not run on the MPA Board:

- If there is another board installed in the PC using the same I/O address range or hardware interrupt level.
- If there is another software program in memory that uses the same software interrupt level.

The MPA Board uses these hexdecimal default settings:

- I/O base address 380 through 38F (hexadecimal). The range is 200 through 3EF.
- Hardware interrupt level 3. The range is 2 through 5.

Your personal computer can have only one product installed that uses these settings. You can change the current I/O address and interrupt level settings to avoid such conflicts with other products. See **Chapter 4, How to Modify the MPA 3270 Emulation Board (Remote)**, to make the hardware changes. See your emulation software documentation for information on making the software changes.

Additional Files

If applicable, one or more files may be used to check the MPA Board installation and the configuration file parameters. These files will be installed during the software emulation installation process. For more details, refer to your software emulation documentation.

3. Installation

To install the MPA 3270 Emulation Board (Remote), follow these steps:

1. Turn all power switches off and unplug all power cords.
2. Remove the cover from the personal computer.
3. Insert the MPA Board into one of the expansion slots of the chassis. Secure the card with the screw you removed before installing it.
4. Replace the personal computer's c over.
5. Re-connect all the cables, then connect the modem cable.
6. Power on the PC.

NOTE

The MPA 3270 Emulation Board (Remote) requires a communications adapter cable to connect the installed MPA Board to a modem or other communications device. An equivalent cable is a male/female 12-conductor cable (wired at pins 1-8, 15, 17, 20, and 22) that conforms to the EIA RS-232C specifications.

4. How to Modify the MPA 3270

Emulation Board (Remote)

You can install more than one communications board in the personal computer. However, if another communications board uses the same I/O address or hardware interrupt level as the MPA 3270 Emulation Board (Remote), neither product will work correctly. Follow these modification guidelines for the MPA Board carefully. Then change the I/O address or hardware interrupt level in the emulation software you are using. Refer to your emulation software documentation for changes to I/O addresses or hardware interrupt level settings.

4.1 MPA Board Settings

Jumper pin settings on the MPA Board define the I/O address and interrupt level. The default base I/O address is 380. With the default settings, your emulation package uses I/O addresses in the hexadecimal range 380 through 3EF. You can change the base address to any hex multiple of 20 in the range 200 through 3E0.

The default hardware interrupt level is level 3. You can change the interrupt level to a setting in the range 2 through 5.

The MPA Board has several sets of jumpers. Default settings appear in **Appendix A**. Only two of these sets of jumpers are relevant:

- The pins labeled JP8 define the I/O address.
- The pins labeled JP3 define the interrupt level.

Fig. 4-1 shows the location of the jumpers for both JP3 and JP8 on the MPA Board.

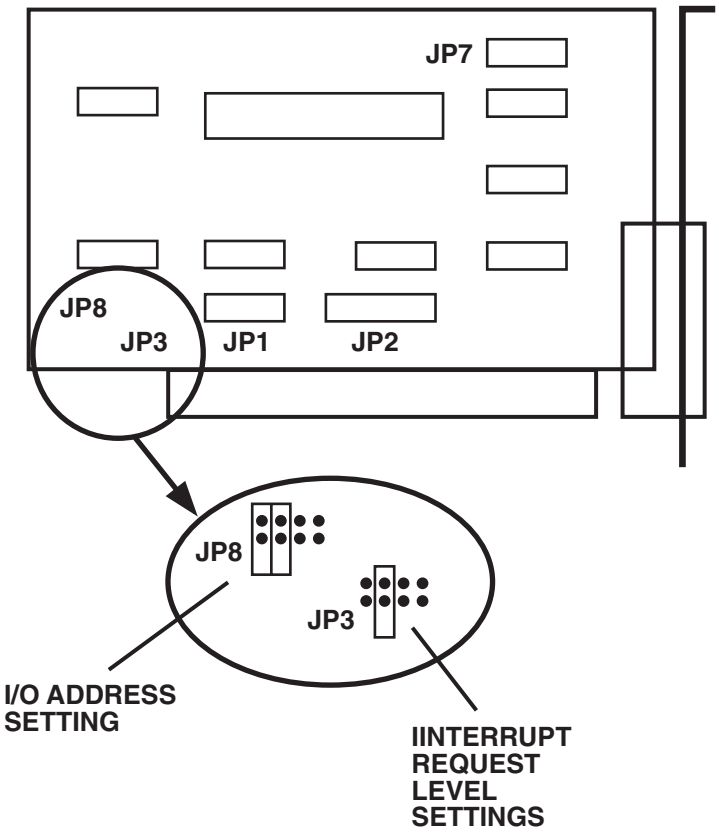

Fig. 4-1. Jumper Locations on the MPA Board.

NOTE

If you modify the jumper settings for either the I/O address or the interrupt level, you must enter the new address or Interrupt Request Level (IRQ) specification in the configuration program or as a runtime parameter, depending on your emulation product. Your emulation documentation describes which method to use and how to change the I/O Address or the interrupt level.

4.2 Changing the I/O Address

You can change the base I/O address to any hex multiple of 20 in the range 200 through 3E0. Depending on other specialized hardware you have installed in your PC, not all addresses in this range will work. If you change the base address and the software does not work properly, use another base address. **Table 4-1** lists the correct jumper settings for each valid base I/O address.

Table 4-1. Jumper Settings (JP8) for I/O Addresses.

Address (hex)	Pins 1,2	Pins 3,4	Pins 5,6	Pins 7,8
200	OUT	OUT	OUT	OUT
220	OUT	OUT	OUT	IN
240	OUT	OUT	IN	OUT
260	OUT	OUT	IN	IN
280	OUT	IN	OUT	OUT
2A0	OUT	IN	OUT	IN
2C0	OUT	IN	IN	OUT
2E0	OUT	IN	IN	IN
300	IN	OUT	OUT	OUT
320	IN	OUT	OUT	IN
340	IN	OUT	IN	OUT
360	IN	OUT	IN	IN
380	IN	IN	OUT	OUT
3A0	IN	IN	OUT	IN
3C0	IN	IN	IN	OUT
3E0	IN	IN	IN	IN

NOTE

If you are using a local area network, verify that the network adapter board does not use the same I/O address or interrupt level that the MPA Board uses.

4.3 Changing the Hardware Interrupt Level

The default hardware interrupt level is level 3. You can change the interrupt level to a setting in the range 2 through 5. **Table 4-2** lists the correct jumper settings for each valid Interrupt Request (IRQ) level.

Table 4-2. Jumper Settings (JP3) for Hardware Interrupt Level.

IRQ level	Pins 1,2	Pins 3,4	Pins 5,6	Pins 7,8
2	IN	OUT	OUT	OUT
3	OUT	IN	OUT	OUT
4	OUT	OUT	IN	OUT
5	OUT	OUT	OUT	IN

If you have questions, call for technical support.

NOTE

If you are using DOS emulation software (PCD62), diagnostic tests are available. See your PCD62 manual for details.

Appendix: Default Board Settings

Fig. A-1 shows the default jumper settings for the MPA Board.

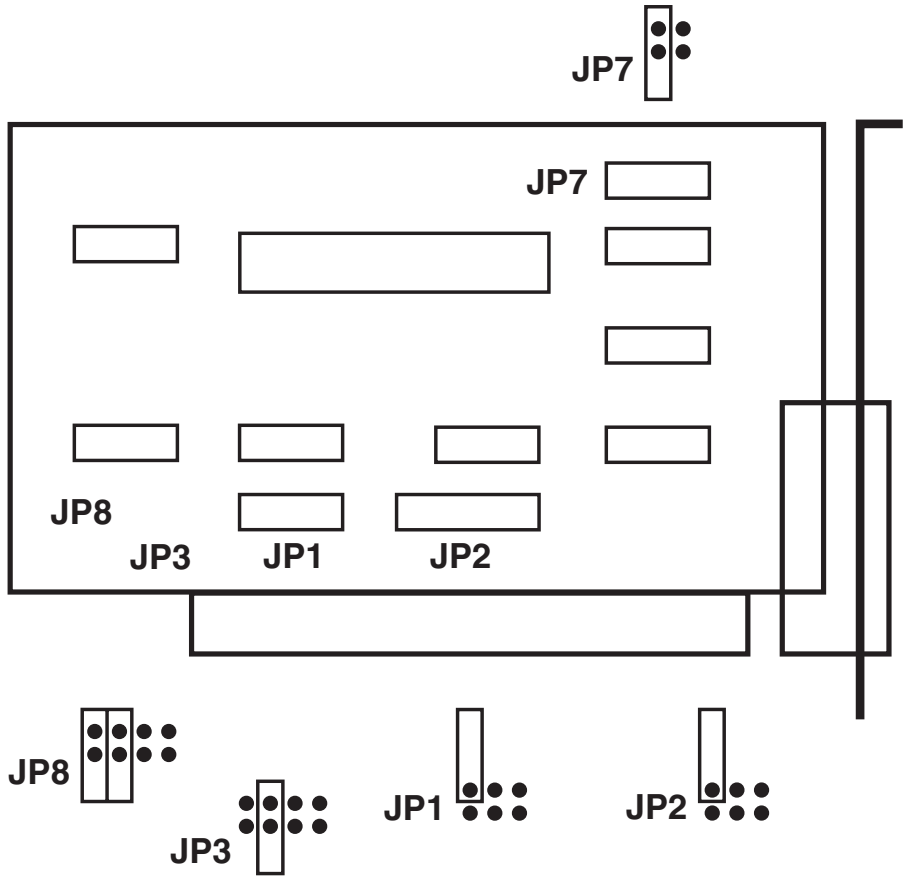

Fig. A-1. Default Jumper Settings.

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