

Model 2275MUX Multiplexer and Model 2275MUXE Extender

TWISTED PAIR CABLES - OK FOR MUX'ING
 STRAIGHT WIRE - BETTER FOR 1-1 CPU TO DISK SETUP

OVERVIEW

The Wang Model 2275MUX multiplexer permits any combination of two, three, or four 2200 MVP-type CPUs or MicroVPs to share a single disk unit or a chained disk pair. The disk unit can be either a Model 2275 or a Model 2280 disk drive, or future Wang 2200 disk drive products. In order for the Model 2275 to be operative with the 2275MUX, it must be updated with an E-Level 4 or greater disk controller board and Revision 4 Level of the PROM firmware.

The 2275MUX disk multiplexing board allocates disk time to multiple systems in a manner that enables all systems to have virtually concurrent access to the disk. Participating systems are sequentially polled on an equal priority basis until one of the systems attempts to access the disk. At that point, control of the disk is passed to the inquiring system, which is permitted to execute a single disk statement or command. (Multisector transfers may be made by a single statement.) When execution of the single disk operation is completed, disk control reverts to the multiplexer, which resumes its sequential polling of the systems.

Some disk operations, such as the on-line updating of a commonly shared file, require that one system have a period of exclusive and uninterrupted access to the disk. For such operations, the \$OPEN statement from the Wang BASIC-2

language should be used. In this mode of operation, one system temporarily monopolizes the disk, locking out all other systems. Critical file maintenance operations may then be carried out by the privileged system without fear of interruption.

DISK MULTIPLEXING CONFIGURATION

The Model 2275MUX Disk Multiplexer configuration consists of the multiplexer board and individual connector cables to each of up to four CPUs. The 2275MUX multiplexer is installed directly in one of the CPUs, where it serves in place of a 22C80 disk controller board. Other participating CPUs must have a 22C80 controller installed in its I/O bus. Extension cables are available to extend the

distance between the multiplexer and a CPU. Figure 1 illustrates a typical system configuration.

MULTIPLEXING MORE THAN FOUR CPUs - THE MODEL 2275MUXE EXTENDER

More than four CPUs can be multiplexed by using a Model 2275MUXE extender. This board is plugged into the CPU in the slot immediately next to the 2275MUX and is connected to it with a ribbon cable. Up to three 2275MUXE boards may be daisy-chained together using a ribbon cable to jump from board to board. Each additional 2275MUXE allows four more CPUs to be multiplexed. CPUs are connected to the 2275MUXE using a standard 22C80 board and existing cable.

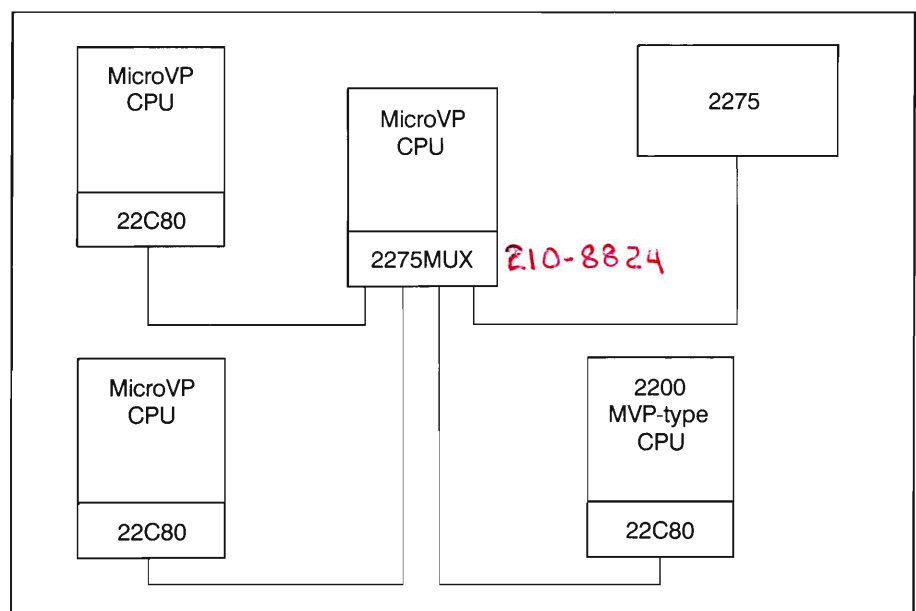


Figure 1. A Typical 2200 Installation (Four CPUs Sharing a Disk Unit)

210-8824 - 210-8825 - 210-8826 - 210-8827 - 210-8828

Up to three Model 2275MUXEs and one Model 2275MUX can be added allowing for a total multiplexing capability of 16 CPUs and one disk unit.

The CPUs connect to the 2275MUXE in the same manner as they do to the 2275MUX. The 2200 CPU contains a 22C80 board that connects to the 2275MUXE boards through an existing cable.

Figure 2 illustrates a typical system configuration using both the 2275MUX and 2275MUXE.

Several configurations beyond the multiplexing of 'one disk unit' are possible when combining both the 2275MUX and 2275MUXE boards on the main CPU. Figure 3 shows one interesting configuration.

SPECIFICATIONS

Standard Equipment

- One 2275MUX Multiplexer board
- One 22C80 controller
- One 12-foot (3.7 m) connector cable

Optional Equipment

- One 2275MUXE Extender and additional 22C80 controllers and 12-foot cables. Extension cables of 25, 50, 100, ~~200~~, 500, 750, and ~~1000~~ feet (7.6, 15.3, 30.5, 76, 153, 228, and 305 meters). ^{100'} ~~100'~~ ^{MAX}

Power Requirements

Multiplexer board and extender both operate off CPU power supply.

System Compatibility

- 2200MVP-type and MicroVP systems
- Model 2275 (updated) and 2280 disk drives

Operating Environment

50° to 95°F (10° to 35°C). 20% to 80% relative humidity, non condensing.

Standard Warranty Applies

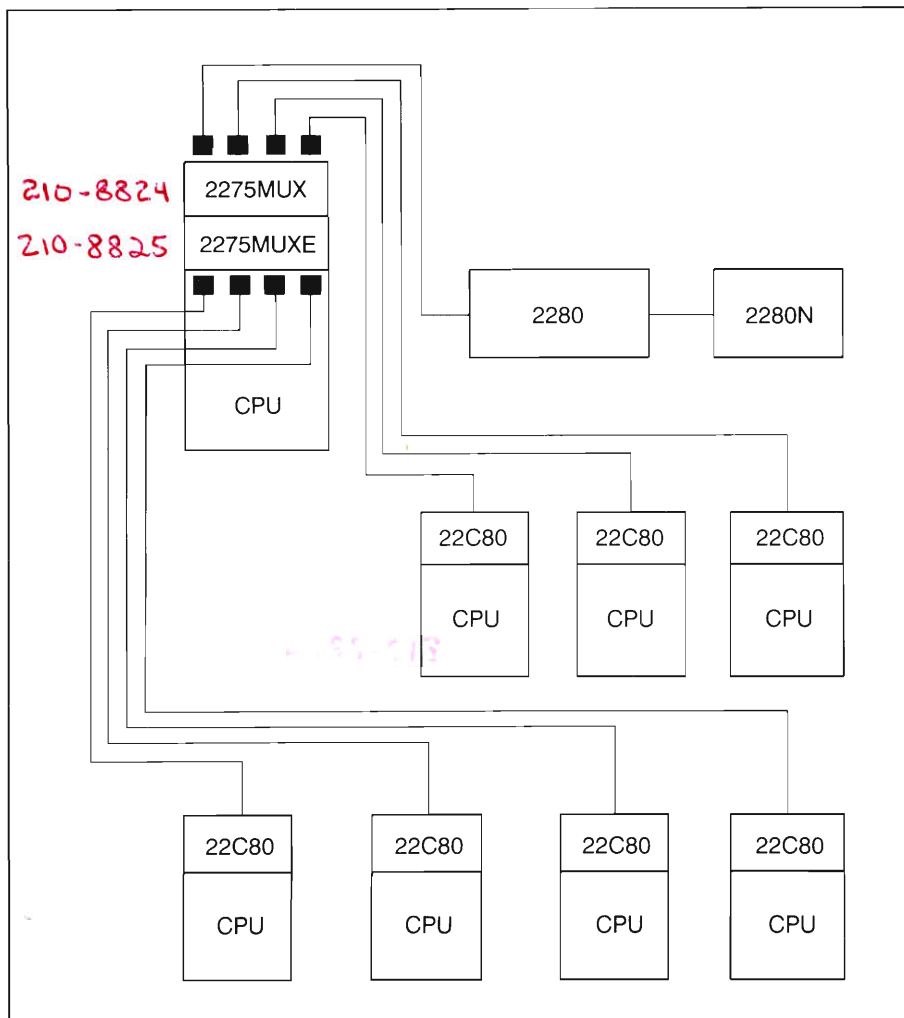


Figure 2. Multiplexing Eight CPUs with One Disk Drive

22C80 - 210-7715

2275MUX - 210-8824

2275MUXE - 210-8825

RIBBON CABLE FOR EXT - 220-3588

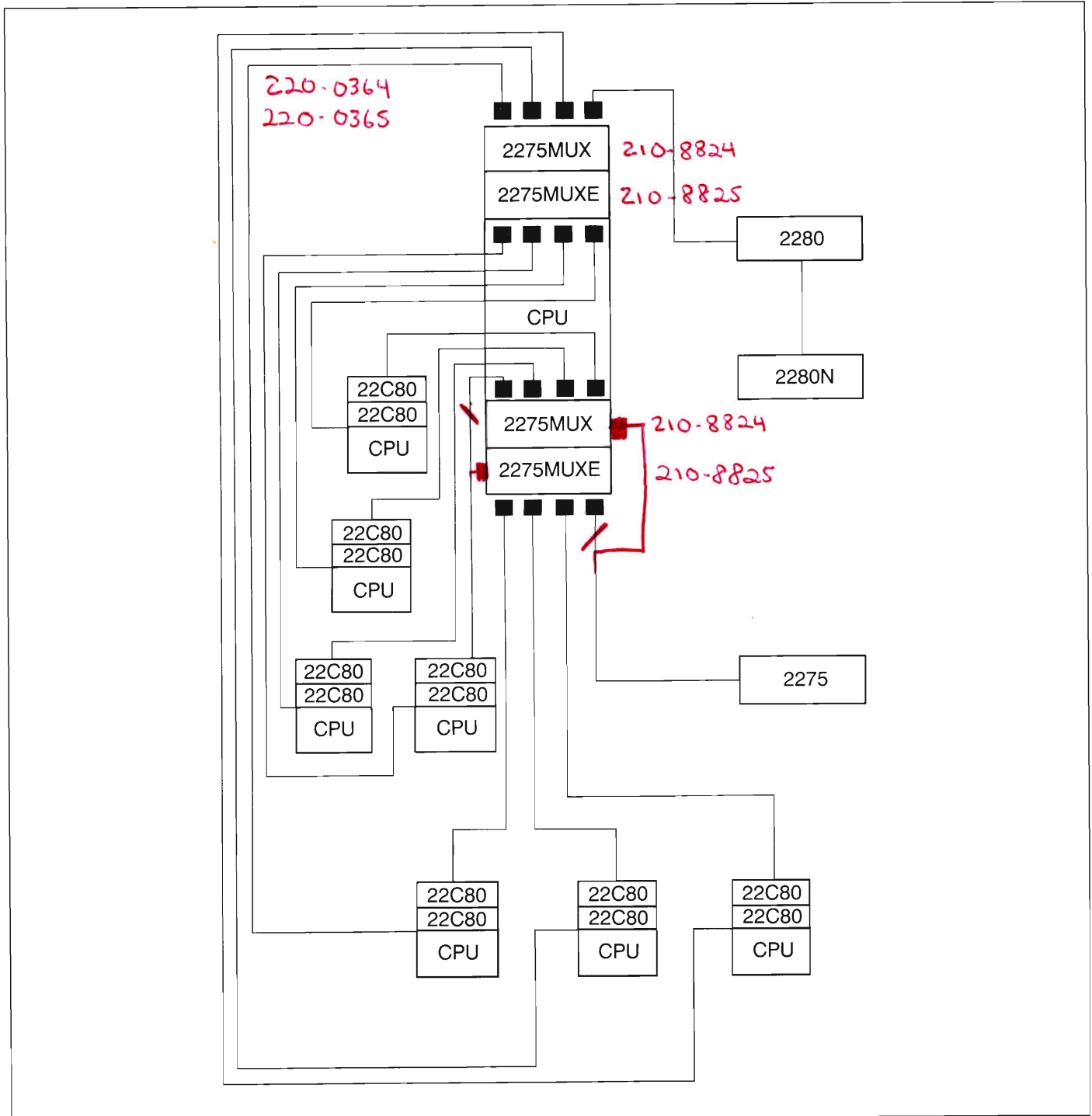


Figure 3. Multiplexing Eight CPUs with Two Disk Units

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Wang Laboratories, Inc., reserves the right to change specifications without prior notice.