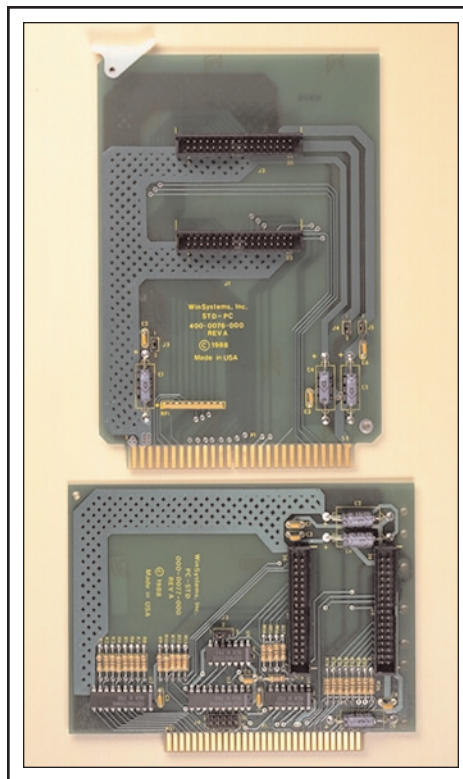


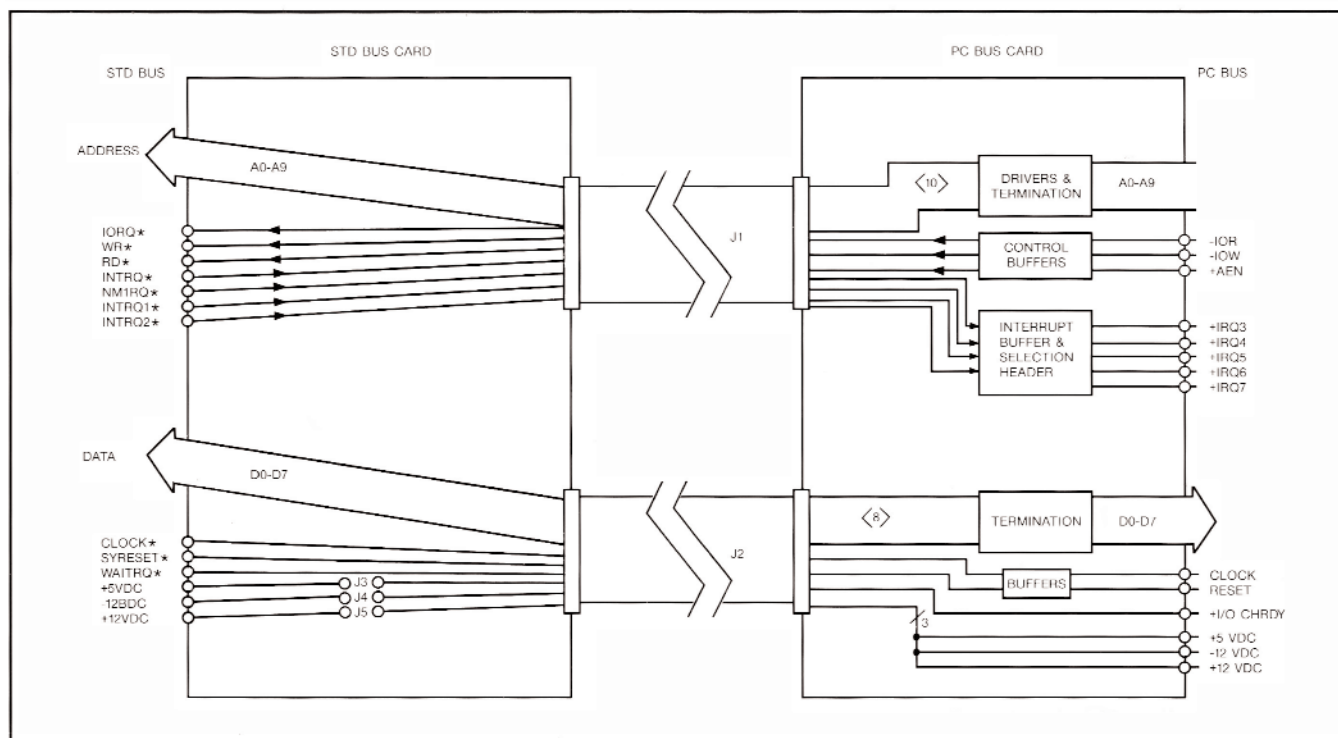
FEATURES

- High Speed PC Bus to STD Bus Interface
- Direct Bus-to-Bus Interface, no software required
- Supports PC-XT/AT Bus architecture
- Data transfer at PC-XT/AT I/O system clock speed with no WAIT States
- 8-bit data transfers done directly through PC I/O addressing
- Supports 8- and 10-bit STD Bus I/O addressing
- Supports both CMOS STD and STD Bus
- Permits "In Systems Emulation" for quick program development
- Provides access to over 1200+ STD Bus Industrial I/O cards for use with a standard PC-XT/AT
- Voltage optionally supplied to STD Bus card through the data cable
- Supports 5 interrupt levels to the PC Bus
- Polarized data cables with strain relief at the end
- STD Bus SYSRESET* controlled by the PC-XT/AT
- Low cost

The PC-STD Adapter is a low cost solution that permits an IBM PC-XT/AT or compatible host computer access to the IEEE 961 STD Bus I/O cards for industrial applications. The host PC-XT/AT is coupled directly to the STD Bus via a 2 card set. One card is installed in the PC-XT/AT and the other in an STD Bus card enclosure connected by two 34-pin ribbon



cables. This is a direct Bus to Bus link operating at full systems speed requiring no software modifications or Wait States to communicate directly from a PC-XT/AT host to the STD Bus I/O cards.



FUNCTIONAL CAPABILITY

Applications - The PC-STD Bus Adapter can be used for 2 main applications: Industrial System Controller and Development System Platform.

The Systems Controller is used for direct control and monitoring by a PC-XT/AT using STD Bus I/O cards. In this mode the PC-XT/AT is used to control all STD Bus I/O devices as simple extensions of its own I/O. STD Bus I/O cards are well suited for industrial I/O because of their rugged design, functionality, open architecture, ease of use, and small size. Over 1200 industrial I/O cards are available from more than 120 companies worldwide at very low cost. The host PC-XT/AT acts as the CPU, storage and display unit. It can also provide access to networks or file servers while the STD Bus cards provide "real world" I/O interfacing. This concept is applicable for additional I/O expansion capability beyond the number of slots available in the host PC-XT/AT.

The PC-STD Bus Adapter is well suited for software development and debugging of the STD Bus systems. The PC-XT/AT serves as an "In Systems Emulator" since it has direct access to the STD I/O cards operating at full bus speed. The programmer has full access to a vast selection of assemblers, high level languages, debuggers and other productivity tools. The final application software can be either PROMed for use in embedded systems or used with STD MS-DOS systems as well. This circumvents the expense of buying a new expensive STD MS-DOS development system by simply allowing you to use your existing PC-XT/AT system.

PC Interface Board - The PC Interface Board is a standard short card requiring 1 card slot within the PC-XT/AT. This board provides an 8-bit parallel data pathway plus control and power signals from the PC Bus to the dual 34-pin ribbon cables. The data transfer rate is at full PC-XT/AT transfer rates without Wait States, typically up to 8 MHz. The I/O CHRDY signal in the host PC-XT/AT is supported to accept Wait State requests for slower I/O devices.

Only I/O transfers are supported. It does not support memory mapped STD Bus cards. Both 8- and 10-bit STD Bus addressing is supported through jumper option J3. For 10-bit addressing, A0 through A9 are fully enable. For 8-bit addressing, the STD Bus cards will be mapped to I/O addresses 100 - 1FF hex only.

These locations prevent potential conflicts with standard existing PC-XT/AT host I/O port locations.

This board generates STD Bus IORQ*, WR*, and RD* from the PC Bus IOR* and IOW* signals. Also IORQ* is inhibited while DMA cycles are occurring in the host PC-XT/AT to prevent any potential bus contention problems.

One hundred ohm series resistors are installed on the Address (A0 - A9), Data (D0 - D7), Clock, IORQ*, RD*, and WR* lines to provide line termination and damping to prevent overshoot, undershoot and ringing.

Five jumper selectable interrupt source input lines are provided to input IRQ3 to IRQ7 to the PC Bus. A jumper header selects the appropriate source from the STD signals INTRQ*, INTRQ1*, INTRQ2*, and NMIRQ*. STD-8088 cascade interrupt acknowledge lines are not supported since the signals are not generated by the host PC-XT/AT.

Data cables - Two CBL-134-6, 34-pin flat cables, link the 2 adapter boards. They are #28 AWG ribbon cables that are each 6-feet long. Each cable end has a polarized, female 34-pin connector with strain relief. The characteristic impedance of the cable is approximately 100 ohms. The data and control signals are separated by alternating ground lines to reduce noise and crosstalk.

DC power can be jumpered through the cable to permit the PC-XT/AT to provide all voltages for small STD Bus systems configurations.

STD Bus Interface Board - This card plugs directly in the STD Bus card rack and terminates the data from the 2 data cables. It also has polarized headers to prevent the cables from being plugged in backwards. The +5 and ± 12 volts can be jumpered from the PC-XT/AT into the rack through J3, J4, and J5.

Software - No special routines are needed to address and communicate with the STD Bus cards from the PC-XT/AT. The PC-STD Bus Adapter is a direct hardware link. The exact same software (regardless of language used) will work with either a PC-XT/AT host or a STD Bus 8088 base CPU.

ORDERING INFORMATION

PC-STD ADP PC Bus to STD Bus Interface with Cables.

