



THE RWS Z-80+ CPU CARD

The **RWS Z-80+ CPU Card** is a full function processor card for Suding Bus computer systems. It occupies the processor slot on the bus, and provides the primary computing element of the system.

Standard features of the Z-80+ processor card include:

- A Z-80B CPU, operating at either 4.0 MHz (standard), 5.0 MHz (optional), or 2.5 MHz (optional).
- A battery backed-up time of day clock calendar, with leap year support, and a minimum 60 day no system power timekeeping capability from the onboard battery.
- A total of 2 K bytes of byte wide EPROM memory to provide power up bootstrapping code. The EPROM memory is organized as 8 256 byte low memory images, each selectable under software or hardware control.
- A EPROM memory disable feature which allows access to the full 64 K bytes of the Z-80 CPU address space from external memory cards.
- A software controllable time driven interrupt feature providing "clock tick" or "heartbeat" style interrupts at a rate of about 100 times per second or faster.
- A large (about 30% of the card area) wire wrap style prototype area available for custom applications.
- Full support for installation of members of the RWS peripheral card family without modification to the Z-80+ processor card.

The **RWS Z80+ processor card** is implemented in industry standard LS-TTL, NMOS, and CMOS integrated circuit technologies. No custom or difficult to obtain parts are utilized. All integrated circuits are installed in sockets for ease of repairability. Full source code is provided for the bootstrap EPROM.

Software support is provided to integrate the needed features of the card with the OASIS and MOPS operating systems. Additional generalized sample support programs are furnished to allow use of the special features of the card (time of day clock, tick, EPROM image select, etc.) in custom environments. All processor card specific software support is furnished in source code.

RWS provides supported versions of CP/M 2.2, CP/M Plus (CP/M 3), MP/M-II, OASIS, Suding AUDIO, DISKMON, and MOPS for various combinations of the Z-80+ processor and other peripheral cards.

RWS standard power up bootstrap eproms provide either operator selection of operating system eprom images, or jumper selection of operating system eprom image. Operator selection of operating system eproms is supported via the RWS IOP driven console, the RWS TV-80 generator/keyboard buffer card, and the TVC-64/IO-F console configuration. All of the standard bootstrap selection EPROMs support manual selection of a single bootstrap image where required. Standard bootstrap images provide support for RWS dual density based CP/M, MCOS, DISKMON, and OASIS; 2.5 MHz Suding Audio; TVC-64 standalone memory test; and PHI-F based PHIMON.

Full disclosure of the electrical design of the processor card is provided as a standard feature of the product. Both a complete schematic, and a component placement pictorial are furnished. A full manual includes parts lists, and descriptions of the design of the processor card.

The standard RWS 13 month parts and labor warranty applies to this product.

ORDERING INFORMATION.

Customer specifies choice of standard (4.0 MHz) or no-charge optional (2.5 MHz, or 5.0 MHz) CPU clock frequency; and choice of standard (RWS IOP console EPROM selection), or no-charge optional (RWS TV-80 console EPROM selection), bootstrap EPROM configuration. Custom CPU clock frequencies and bootstrap EPROM support configurations are available on a request price quotation basis.