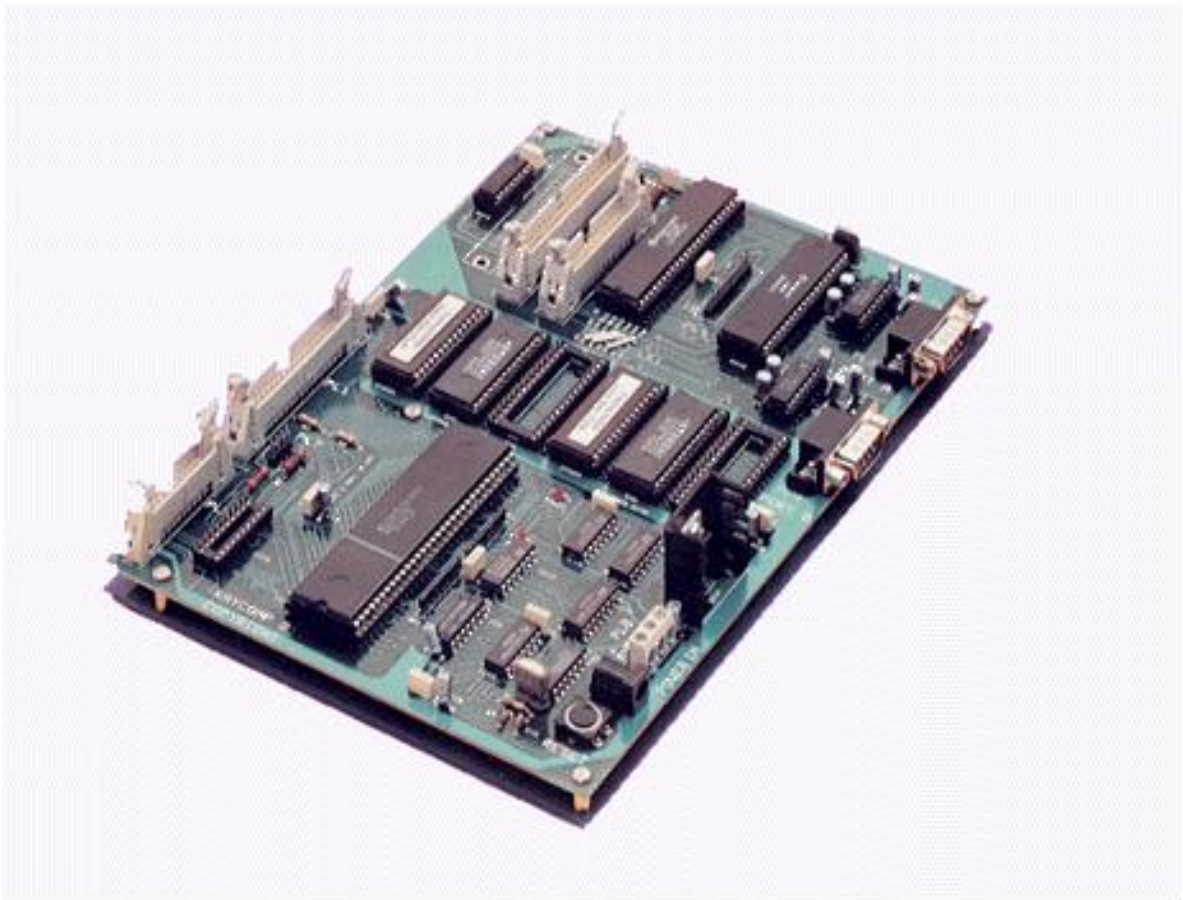# KAYCOMPII (K2-68K)
68000 TRAINING & DEVELOPMENT SYSTEM

KAYCOMP II is a complete computer board based on the MC68000 16 bit microprocessor and peripheral devices. Extensive serial and parallel Input and output hardware equip the board as an effective target system for a wide range of stand-alone applications - especially real time control, where the power and speed of the 68000 are particularly important.

It is also a versatile design and evaluation tool, ideal for **EDUCATIONAL** and **TRAINING** applications. Standard connectors give full access to Data and Address buses so that logic analysers and other diagnostic equipment can be connected easily for demonstration and debugging purposes.

On board 16 bit wide static RAM and EPROM are provided, and auxiliary memory sockets allow for the fitting of additional RAM or EEPROM chips.

The standard system is supplied with comprehensive EPROM based monitor and line-by-line assembler programs, PC compatible communications software, power supply unit, serial cable, experiments manual and technical/user's manual. A separate manual is also supplied for the WIN68K window's communications software.

KAYCOMP II 68000 - Hardware Features
- **68000 Microprocessor** running at 8 MHz (or 10 MHz option) with full 16 bit wide data bus.

- **68681 DUART** providing two independent serial ports via MAX232 line driver/receivers.
- **68230 PI/T** with three 8-bit parallel I/0 ports and four independent handshake lines.
- **Fully decoded 68000 interrupts,** providing seven independent priority gated IRO inputs.
- **Six 32 pin sockets** for SRAM, EPROM, and Auxiliary SRAM/EEPROM.
- **64 kbyte RAM and EPROM** fitted on standard board.
- **Address decoding** allows up to 4 M bit RAM, EPROM, and EEPROM devices to be used.
- **Direct access** to 16 bit Data bus, and Address bus.
- **Patch area** allows all memory device types to be fitted.
- **Voltage regulator** allows unregulated 8-13 Volt, or regulated 5 Volt DC supply.
- **I2C interface** option allows a host of serial peripherals to be used.
- **LED** Power and 'System Running' indicators.

KAYCOMP II is built on a double-sided printed circuit board 234mm x 160mm (double eurocard outline) with plated through holes, green solder mask, and screen printed component layout and identification. The two serial port connectors are 9 pin DEE types. Two-row 0. 1 " IDC connectors and single row 0. 1 " pin headers are used for the other connections. A standard 2.l mm power inlet socket is fitted for the unregulated supply along with screw terminals for direct 5V DC supply connection.

KAYCOMP II Software Features

- **EPROM based monitor program** with over 30 commands and 27 system calls, combined with an assembler/disassembler program. Just some of the features are listed below.
- **Line-by-line assembler -** converts assembly language into hex code as it is entered. This is an ideal way to check short routines, hardware interfaces etc. and is an excellent educational tool - as is the disassembler.
- **Disassembler -** takes a specified area of memory and displays equivalent assembly code instructions.
- **Memory manipulation -** all memory locations can be displayed, printed, and modified independently
- **Register operations -** address, data, and status registers can be inspected, modified, and loaded.
- **Program development features -** programs can be run to **breakpoints** or **single stepped.**
- **Trace** function shows register contents after each step.
- **Standard unloading format -** programs can be loaded from Motorola S-Format files (which are produced by all 68000 cross assemblers).
- **System Calls -** a range of 27 commonly used subroutines that can be incorporated into user's programs.

KAYCOMP II is supplied in a robust storage case and is complete with MonitorlAssembler EPROMS, RAM, Serial and Parallel I/O devices, Power supply (EU, UK or US style), Experiments manual, Disk based PC Communications software and Technical/User Manual.

A range of parallel I/O and I2C applications products are also available along with low cost and professional grade Cross-development software.

ABITEC