

**WHITECHAPEL WORKSTATIONS**



**MG-1**

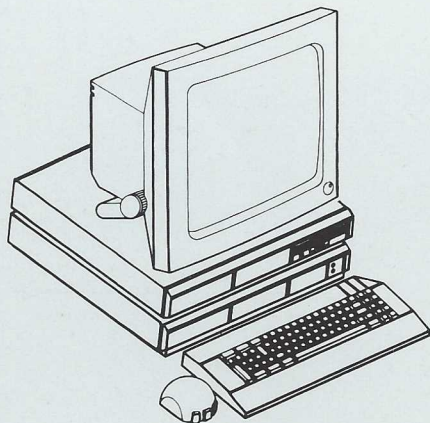
PRODUCT DATA

# MG-1

The MG-1 is one of the world's finest personal workstations incorporating VLSI technology to provide powerful facilities at a low cost.

The MG-1 satisfies the worldwide demand for workstations facilities providing very high performance graphics with high resolution at the price of a personal computer. The technical excellence of the MG-1 has radically changed the face of workstation technology.

MG-1 workstations are in use in major companies, Universities and Research Establishments throughout Europe. Application areas include CAD, CAE, VLSI Design, Image Processing, Mapping, Business Graphics, Software Engineering, Solid Modelling, Finite Element Analysis and Electronic Publishing.



## Personal Power

- Fast & responsive.
- Dedicated processing power per user
- Floating point coprocessor for arithmetic speed
- Virtual Memory removes restrictions on applications size
- Local disc storage for consistent response.

## Superb Graphics

- Fast and efficient graphics
- Display screen is managed as a series of windows.
- Interactive controls for window handling
- Point-click-see interface using mouse
- Icons for rapid manoeuvrability and visual impact.
- Well-defined programming interface.

## Interworking with other systems

- 42-nix operating system is a superset of Berkeley Unix 4.2 bsd
- NFS and TCP/IP support are available
- VLSI implemented Ethernet to IEEE 802.3 standard
- RS232 interface and driver software are provided

## Peripheral connection

- Peripheral bus supports standard IBM PC cards.
- Inexpensive connection for standard peripherals
- Hooks for user drivers for exotic peripherals.
- Special peripherals eg. MGLP via fast WCW interface



# MG-1





# TECHNICAL SUMMARY

## Processor

32-bit processor (NS 32016) with 8 MHz clock, floating point unit (NS 32081) and memory management unit (NS 32082) providing a full demand-paged virtual memory system with 1 Kbyte page size.

## Memory

Uses MOS semiconductor DRAM with 150ns access time. Dual ported between processor and display using 64 bits highway. Minimum systems 2 Mbyte field upgradable to a maximum of 8 Mbytes in 2 Mbyte increments, all within the standard enclosure.

## Display

Non-interlaced bit-mapped display system with resolution of 1024 × 800 pixels refreshed from system memory. Display controller uses a paged memory system compatible with the memory management unit, thus program variables can be used as screen buffers. Page tables for four screen maps are held concurrently in Video Mapping RAM with instantaneous switching permitting the use of double buffering techniques for smooth animation. Reverse video available.

## I/O Processor

A separate 8-bit microprocessor (Motorola 68121) tracks the mouse and controls hardware cursor positioned image. Provides interface to keyboard.

## Input/Output

One serial port (RS232 C) standard up to 9600 bps. General purpose expansion port allowing direct access to system bus and DMA service from the on-board controller. Accepts a mother board supporting up to 3 IBM PC compatible expansion boards.

## Local Network

An optional integral IEEE 802.3 Ethernet controller.

## Fixed Disk System

5.25" Winchester technology fixed disc. Choice of capacities from 22 to 45 Mbytes, average seek time 50 ms; 93 to 125 Mbytes, average seek time 25 ms. Transfer rate 600 Kbytes/sec.

## Floppy Disc System

5.25" double-sided, double-density, 96 tpi, half-height floppy disk drive, 0.8 Mbyte formatted capacity.

## Keyboard

Free-standing, fully programmable, lightweight, solid state keyboard. IBM PC layout with 83 keys including numeric pad and function keys.

## Mouse

A three button mouse is standard interfaced to the main system via a slave processor directly connected to the cursor.

## Environmental Properties

Power inputs: 250 watts

Power requirements: 98-125 VAC or 200-250 VAC

## Cabling

All connecting cables are supplied.

## Physical Dimensions

Processor Unit: 495mm × 170mm × 475mm

Screen: 435mm × 440mm × 395mm

Keyboard: 495mm × 185mm × 50mm

## Weight

Processor Unit: 17.5 Kg

Screen: 13.5 Kg

Keyboard: 2.5 Kg

Total: 33.5 Kg

UNIX is a trademark of AT&T Bell Laboratories.

The Network File System originates from SUN Microsystems Inc.,

The Instruction Set and Lachman Associates Inc.



WHITECHAPEL WORKSTATIONS

75 Whitechapel Road, London E1 1DU

Tel: 01-377 8680 Telex: 885300 WCW G Fax 01-247 4589 (Group 2 & 3)