SANDY

FUTURA

Tony Tebby (Qjump) design brilliance combined with Sandy high technology manufacturing expertise has resulted in an entirely new concept for personal computers - the FUTURA.

Design objectives were to produce a fast, easy to work with system which would invite expansion by providing designed—in interfacing rather than the added on afterthought arrangements usually found in microcomputers. Futura packs all this onto a high density circuit board which measures just 215 X 225 mm.

The system is based on a full Motorola 68000 with modes which give complete compatibility with all QL software and execution times between 3 and 10 times faster. Networking to a QL using the advanced file server system enables both machines to exchange data and programs even accessing the QL microdrives from FUTURA. Expansion facilities provide for compatibility with other 68000 based computers and an MSDOS emulator using an INTEL 80186 second processor is being developed.

CASING & KEYBOARD

A compact metal casing uses a stylish moulded front panel to house the main components:

            A silent high grade switch-mode power supply
            Futura main circuit board
            Display processor and ram expansion boards
            Up to two 3.5" floppy disk drives
            One 3.5" hard disk
            Up to two double Eurocards or QL expansion cards

A separate slimline keyboard designed especially for the Futura attaches with a coiled lead and provides high quality real action keys in an 89 key layout with numeric pad, separate cursor controls, 10 function keys and a hot key.

SYSTEM ARCHITECTURE

To achieve the maximum expansion capabilities a dual bus architecture is employed. The main processor and peripheral devices of all types use the processor bus which is also extended to full VME standard. RAM access is controlled by the display processor on a separate bus resulting in unrivalled speed and flexibility in configuring the system for any application.

Primary expansion uses up to seven plug-in ROM/PERIPHERAL modules which use reduced bus 48 pin connectors providing up to 256K Bytes of address space each. Direct addressing and default handshaking for simple ROMs are supported by facilities to generate additional wait states and single vectored interrupts for complex devices.

General expansion is through an 80 way connector directly on the processor bus allowing a VME bus rack, QL peripheral rack or any custom designed expansion to be reliably interfaced.

Processor expansion for applications such as second
processors, specialist graphics controllers and peripherals
requiring direct memory access use a combination of ROMPer
connectors and RAM bus access.

The display processor board houses the plug-in ram modules
which are available in 512K Bytes or 2M Bytes versions up to
a total of 8M Bytes RAM. The standard display driver produces
640 pixel mode in 16 colours with an optional fast ram pallet
-mapping module generating up to 65536 colour options for
super graphics.

HARDWARE

```
Processor : Motorola MC68000  [MC68010 option]
Clock rate: 8 MHz
System ROM: 128K Bytes exchangeable module
RAM       : 512K Bytes to 8M Bytes by plug in module
Display   : Multi-mode plus QL screen compatibility
            Pallet mapping option plus video editing
            for titling and graphic screen generation
Ports     : MIDI out  [MIDI in option]
            Mouse controller
            Parallel port for printers and peripherals
            Two serial ports to BS58 with 5pin DIN sockets
            with full duplex operation
            Independent baud rate settings
            Network ports - QL compatible
Expansion : Full processor bus connector
            Two internal ROMPer/RAM bus connectors
            Two internal ROMPer connectors
            Two external ROMPer connectors
Sound     : Stereo sound generation with loudspeaker
Clock     : Battery backed real time clock
Disks     : Up to two 3.5" 80 track floppy drives
            20 or 40 M Bytes 3.5" hard disk
```

SYSTEM SOFTWARE

OPERATING SYSTEM:
    Multi-mode operating system with QDOS compatible mode
    Extended real window handling
    Pull-down and static menus
    Hot key operation
    Fully integrated pointer environment for mouse operation
    Multitasking job manager
    Spooler
    Full error reporting

BASIC LANGUAGE:
    Enhanced programming language compatible with Superbasic
    All Supertoolkit facilities built in
    Faster execution

BASIC COMPILER:
    Liberator basic full floating point compiler

SANDY FUTURA

**DUE TO THE TREMENDOUS DEMAND FOR THIS
SOPHISTICATED COMPUTER SYSTEM, ORDERS WILL
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Please reserve my Futura.

Title (Mr./Mrs./Miss).................   Christian Name..

Surname...

Address...

Town...

County...   Postcode................................

Country...

Enclosed is Cheque No. ....   Value £................................

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Model Specification

PROCESSOR	68000	☐	68010	☐
RAM	512K	☐	1 MBYTE	☐
3½ DISK	SINGLE	☐	DUAL	☐
MONITOR	MONO	☐	COLOUR	☐
3½ 20 MBYTE WINCHESTER DISK		☐		

PRICE GUIDE :

512K RAM SINGLE DRIVE	£500	+ VAT
DUAL	575	
512K RAM UPGRADE TO 1 MBYTE	40	
68010 OPTION	40	

SPECIFICATION NOW INCLUDES :

EXTERNAL DISK PORT FOR 5.25"/3.5" DRIVES

'n' CHANNEL SOUND BUILT IN

FULL MIDI IN & OUT WITH OPTO-ISOLATION